155 FERC ¶ 63,004
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Public Utilities Commission of the State of California — Docket No. EL02-60-007

Complainant,

v.

Sellers of Long-Term Contracts to the California Department of Water Resources

Respondents.

California Electricity Oversight Board — Docket No. EL02-62-006

Complainant, (consolidated)

v.

Sellers of Energy and Capacity Under Long-Term Contracts with the California Department of Water Resources

Respondents.

INITIAL DECISION

(Issued April 12, 2016)

APPEARANCES

Martin Goyette, Esq., Danette E. Valdez, Esq., Kevin J. McKeon, Esq., Judith D. Cassel, Esq., Whitney E. Snyder, Esq., and *Melissa A. Chapaska, Esq.,* on behalf of the Attorneys for the People of the State of California ex rel. Kamala D. Harris, Attorney General.

Arocles Aguilar, Esq., Candace J. Morey, Esq., Marcelo L. Poirier, Esq., Paul B. Mohler, Esq., Lucus A. Ritchie, Esq., and *Louise K. Thomas, Esq.,* on behalf of the Public Utilities Commission of the State of California.

Stan Berman, Esq., Eric Todderud, Esq., Lauren Freeman, Esq., Mark D. Patrizio, Esq., and *Joshua Levenberg, Esq.,* on behalf of Pacific Gas and Electric Company.

Richard L. Roberts, Esq., Jane I. Ryan, Esq., Catherine M. Giovannoni, Esq., and *Russell A. Archer, Esq.,* on behalf of Southern California Edison Company.

Jeffrey D. Watkiss, Esq., Mark H. Churchill, Esq., Richard K. Welsh, Esq., William M. Friedman, Esq., Jessica L. Bayles, Esq., and *Julie A. Herward, Esq.,* on behalf of Shell Energy North America (US), L.P.

Toan-Hao Nguyen, Esq., Jason Johns, Esq., Joel A. Mullin, Esq., and *Seth Hilton, Esq.,* on behalf of Iberdrola Renewables, LLC.

Edith A. Gilmore, Esq., and *Justin J. Mirabal, Esq.*, on behalf of the Trial Staff of the Federal Energy Regulatory Commission.

Steven A. Glazer, Presiding Administrative Law Judge.

TABLE OF CONTENTS

TABLE OF ABBREVIATIONS

ALJ	Administrative Law Judge
BEEP Stack	Balancing Energy and Ex Post Stack
CAISO	California Independent System Operator
CalPX	California Power Exchange
CCGT	combined cycle gas turbine
CDWR	California Department of Water Resources
CEC	California Energy Commission
CERS	California Energy Resources Scheduling Division of CDWR
CFTC	Commodity Futures Trading Commission
Commission	Federal Energy Regulatory Commission
Complainants	CPUC and EOB
CONE	cost of new entry
CPUC	Public Utilities Commission of the State of California
Crisis Period	May 1, 2000 – July 6, 2001
DAYZER	Day-Ahead Locational Market Clearing Prices Analyzer
EDRAM	Environmental-Dynamic Revenue Analysis Model
EOB	California Electricity Oversight Board
FERC	Federal Energy Regulatory Commission
FPA	Federal Power Act
HHI	Herfindahl-Hirschman Index
Iberdrola	Iberdrola Renewables, LLC
Interim Period	October 2, 2000 – January 16, 2001
IOUs	investor-owned utilities
LOI	letter of intent
LRMC	long run marginal cost
MMCP	mitigated market clearing price
MMIP	Market Monitoring and Information Protocol
NCI	Navigant Consulting, Inc.
Negotiation Period	January 17, 2001 – July 6, 2001
NGI	Natural Gas Intelligence
NPV	net present value
OOM	out-of-market
PG&E	Pacific Gas & Electric Company
PPM	PacifiCorp Power Marketing, Inc.
Refund Period	October 2, 2000 – June 20, 2001
Respondents	Shell and Iberdrola

RFBs	requests for bids
ROE	return on equity
RPS	renewable portfolio standard
SCE	Southern California Edison Company
SDG&E	San Diego Gas & Electric Company
Shell	Shell Energy North America (US), L.P.
SRA	Summer Reliability Agreement
Summer Period	May 1, 2000 – October 1, 2000
Wildflower	Wildflower Energy, L.L.C.

I. Decision

1. The primary issue for decision in this case is whether the *Mobile-Sierra* doctrine, holding that a bilateral contract for electric power is presumed to be just and reasonable in accordance with the Federal Power Act unless it is contrary to the public interest, applies to long term contracts for power that the State of California executed with two sellers during the Western Energy Crisis of 2000-2001. The short answer is that it does not apply to either contract.

2. The secondary issue for decision in this case is whether one of those sellers was properly dismissed from this case by the Commission at an earlier stage of the proceeding because it signed its contract with the State of California after the Western Energy Crisis had passed. The short answer is that it was not.

II. Preliminary Statement

3. On February 25, 2002, the Public Utilities Commission of the State of California (CPUC) and the California Electricity Oversight Board (EOB) (collectively, Complainants)[1] each filed a complaint with the Federal Energy Regulatory Commission (FERC or Commission) pursuant to section 206 of the Federal Power Act (FPA)[2] to abrogate several long-term wholesale electricity contracts that the California Department of Water Resources (CDWR) had made with certain power marketers.[3] The contracts were entered into during 2001[4] amidst a period of market dysfunction in the western United States that has come to be known as the "Western Energy Crisis."[5] All of the power marketers have settled with Complainants but two—Shell Energy North America

[1] The CPUC complaint was assigned Docket No. EL02-60 and the EOB complaint was assigned Docket No. EL02-62. The Commission consolidated the complaints. *Pub. Utils. Comm'n of the State of Cal. v. Sellers of Long-Term Contracts to the Cal. Dep't of Water Res.*, 99 FERC ¶ 61,087 (2002) (*CPUC v. Sellers of Long-Term Contracts*). The EOB was defunded in 2008 and is no longer an active party. *See CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 2 n.2 (2014) (Comm'n Order on Remand).

[2] 16 U.S.C. § 824e(a) (2012).

[3] *See CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 2 (2014) (Comm'n Order on Remand).

[4] *See* Ex. CAL-50 (Summary of Executed CDWR Power Contracts).

[5] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 1 (2014).

(US), L.P. (Shell)[6] and Iberdrola Renewables, LLC (Iberdrola)[7] (collectively, Respondents).

A. Relevant History of the Western Energy Crisis Proceedings

4. It is not necessary to recite here the history of the Western Energy Crisis. A comprehensive survey of the Crisis is found in the opinion of the U.S. Court of Appeals for the Ninth Circuit in *Public Utilities Comm'n of State of Cal. v. FERC*, 462 F.3d 1027, 1036-1045 (9th Cir. 2006). The many proceedings before FERC concerning this crisis were spawned by enormous electric utility rate hikes that began in San Diego in 2000,[8] one of which was a complaint filed with the Commission on August 2, 2000 by San Diego Gas & Electric Company (SDG&E) in Docket No. EL00-95.

5. In the *SDG&E* case, the Commission determined that the electric market structure and market rules for wholesale sales of electric energy in California were seriously flawed and that these structures and rules, in conjunction with an imbalance of supply and demand, caused unjust and unreasonable rates during the period of the Crisis, October 2, 2000 through June 20, 2001.[9]

6. The Commission followed up on December 15, 2000 with an Order allowing California's three investor-owned utilities (IOUs), Pacific Gas & Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E), to enter into long-term contracts to purchase electricity. Doing so removed their restraint on purchasing their energy needs exclusively through the California Power Exchange (CalPX) and the California Independent System Operator (CAISO).[10] This early effort on the Commission's part failed to staunch the bleeding,

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[6] Shell was known during the relevant time period as Coral Power, L.L.C.

[7] Iberdrola was known during the relevant time period as PacifiCorp Power Marketing, Inc. and later as PPM Energy, Inc.

[8] Ex. CAL-247 at 4:22-16:11 (Florio Direct).

[9] *San Diego Gas & Elec. Co. v. Sellers of Energy and Ancillary Services into Markets Operated by the Cal. Indep. Sys. Operator and the Cal. Power Exch.*, 93 FERC ¶ 61,121 (2000) (*SDG&E v. Sellers*); 101 FERC ¶ 63,026 at P 41 (2002) (ALJ Certification of Proposed Findings on California Refund Liability).

[10] *SDG&E v. Sellers*, 93 FERC ¶ 61,294 (2000). Originally, CalPX ran California's Day-Ahead and Hour-Ahead electricity markets, while CAISO ran its Real-Time and Ancillary Services markets. Ex. CAL-285 at 19:7-9 and 20:15-16 (Taylor Direct).

however. The CalPX collapsed and closed its doors on January 30, 2001, filing for bankruptcy on March 9, 2001. [11] On April 6, 2001, PG&E filed for bankruptcy; SCE and SDG&E were in similar financial straits, but avoided bankruptcy filings through arrangements with creditors.[12]

7. As a result, FERC tried a more aggressive approach. An order issued on June 19, 2001, that imposed price caps on the Western spot market from June 20, 2001 through September 30, 2002.[13] Following FERC's issuance of that order, spot market bid levels dropped significantly.[14]

8. In 2001, the Commission established a refund procedure by establishing a proceeding (the "Refund Proceeding"). The refund procedure required sellers operating in the CalPX and CAISO during the period from October 2, 2000 through June 20, 2001 (the "Refund Period") to disgorge revenues that they made on the energy prices that they had charged during that time in excess of a "proxy price." The "proxy price" was defined as "the price that would be paid in a competitive market, in which sellers have the incentive to bid their marginal costs."[15] This proxy price was called the "mitigated market clearing price" or "MMCP."[16] In 2003, the Commission approved the determination of Administrative Law Judge Bruce Birchman in the Refund Proceeding that $1.8 billion in refunds were due to the CalPX and CAISO from the sellers.[17]

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[11] *Public Utilities Comm'n of State of Cal. v. FERC*, 462 F.3d 1027, 1042 (9th Cir. 2006).

[12] *Id*. at 1042-1043.

[13] *SDG&E v. Sellers*, 95 FERC ¶ 61,418 (2001).

[14] *See* Ex. CAL-227 at 15-16 (Figure 7 shows significant growth of lower-level bids into BEEP Stack over high-level bids).

[15] *SDG&E v. Sellers*, 97 FERC ¶ 61,275, at 62,212 (2001).

[16] *SDG&E v. Sellers*, 93 FERC ¶ 61,121 (2000), *on reh'g and clarification*, 97 FERC ¶ 61,275 (2001).

[17] *SDG&E v. Sellers*, 101 FERC ¶ 63,026, at P 7 (2002) (ALJ Cert. of Proposed Findings), *aff'd*, 102 FERC ¶ 61,317, at P 5 (2003) (Comm'n Order on Proposed Findings).

9. Upon appeal and remand of that decision by the U.S. Court of Appeals for the Ninth Circuit in 2006,[18] the Commission expanded the Refund Proceeding to include spot market sales that occurred during that part of the Crisis Period that predated October 2, 2000, and certain other types of transactions.[19]

10. In the expanded Refund Proceeding, Administrative Law Judge Philip Baten determined in 2013 that forward market and energy exchange sellers collectively owed an additional $90.9 million in payments exceeding MMCP for the original Refund Period.[20] The ALJ was not instructed by the Commission to determine refunds for the period that preceded October 2, 2000 (that is, the period from May 1, 2000 to October 1, 2000, referred to as the "Summer Period"). He did find, however, that certain sellers, including Shell, "committed various tariff and other violations that affected the market clearing price in the California organized electric markets during the Summer Period."[21]

11. In 2014, the Commission affirmed the ALJ's findings in the expanded Refund Proceeding in *SDG&E*.[22] However, all respondents that engaged in energy exchange transactions, and all respondents that engaged in forward market transactions except Constellation, had already settled with the Complainants by that time. Consequently, the Commission ordered only Constellation to pay refunds for the Refund Period in the amount of $2,845,024.[23] As for the Summer Period, the Commission ordered the remaining respondents, including Shell, to disgorge their revenues in excess of MMCP and to submit compliance filings specifying the exact amount of their refund

[18] *Public Utilities Comm'n of State of Cal. v. FERC*, 462 F.3d 1027, 1036-1045 (9th Cir. 2006).

[19] *Id*. at 1035, *on remand*, *SDG&E v. Sellers*, 129 FERC ¶ 61,147 (2009), *on reh'g*, 135 FERC ¶ 61,183 (2011).

[20] *SDG&E v. Sellers*, 142 FERC ¶ 63,011, at P 2 (2013) (Initial Decision).

[21] *Id*. P 1.

[22] *SDG&E v. Sellers*, 149 FERC ¶ 61,116 (2014) (Opinion No. 536), *aff'd on reh'g*, 153 FERC ¶ 61,114 (2015) (Order on Rehearing).

[23] *Id*. PP 24, 238.

obligations.[24] On January 16, 2015, Shell complied with that obligation, reporting a refund (under protest) of $5,345,489.47.[25]

12. Also in 2014, Commission Administrative Law Judge Bobbie McCartney issued an initial decision in the *Puget Sound Energy* case,[26] a parallel proceeding addressing the effects of the Crisis Period in the Pacific Northwest energy market. She determined that the complainants in that case (including the Complainants here) had made a *prima facie* showing that Shell had engaged in manipulative schemes known as "false export" in that market.[27] The Commission affirmed the initial decision in part and reversed it in part, and remanded the initial decision to revise certain unclear determinations. [28] Upon remand to Judge Baten after Judge McCartney's retirement, a revised partial initial decision issued in 2016, confirming that Shell had engaged in false exports in the Northwest market. [29]

13. The instant case has arisen out of the same set of facts as the foregoing proceedings. It originally concerned more than 30 long-term contracts that were entered into during 2001 between the CDWR and numerous energy sellers.[30] CDWR was tasked in 2001 by the State of California with purchasing the electric power needed to make up the shortfall, known as the "Net Short," that arose in the state during the Crisis when its

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[24] *Id*. PP 3, 209-213.

[25] Shell Energy North America (US), L.P. Compliance Filing, Docket No. EL00-95-248, at 4 (January 16, 2015).

[26] *Puget Sound Energy, Inc. v. All Jurisdictional Sellers of Energy and/or Capacity at Wholesale into Electric Energy and/or Capacity Markets in the Pacific Northwest, Including Parties to the Western Systems Power Pool Agreement*, 146 FERC ¶ 63,028 (2014) (McCartney, J.), *aff'd in part and rev'd in part*, 151 FERC ¶ 61,173 (2015) (Opinion No. 537), *reh'g denied*, 153 FERC ¶61,386 (2015), *on remand*, 154 FERC ¶ 63,004 (2016) (Baten, J.) (*Puget Sound Energy v. All Jurisd. Sellers*).

[27] *Puget Sound Energy v. All Jurisd. Sellers*, 146 FERC ¶ 63,028, at PP 1413-1414 (2014).

[28] *Puget Sound Energy v. All Jurisd. Sellers*, 151 FERC ¶ 61,173, at P 215 (2015) (Opinion No. 537).

[29] *Puget Sound Energy v. All Jurisd. Sellers*, 154 FERC ¶ 63,004, at PP 20-33 (2016) (Baten, J).

[30] *CPUC v. Sellers of Long-Term Contracts*, 99 FERC ¶ 61,087, at 61,377 (2002).

three IOUs no longer had the financial viability to purchase all of the electricity needed to meet their customers' needs.[31]

14. The Complainants ask the Commission to abrogate these contracts as unjust and unreasonable, or to reform the contracts to provide for just and reasonable rates, reduce their duration, and strike certain non-price terms and provisions from the contracts.[32] The Complainants allege that the Respondents exercised market power that forced CDWR to pay unjust and unreasonable prices and to agree to onerous, unjust and unreasonable non-price terms in order to secure the power necessary to ensure that the lights stayed on in California.[33]

B. Legal Developments of the *Mobile-Sierra-Morgan Stanley* Rule

15. The complaints call into play the Commission's authority under the FPA to alter and abrogate contracts for the wholesale purchase and sale of electric power. A public utility cannot charge a customer a rate for future purchases of wholesale electricity unless the Commission finds that rate to be "just and reasonable" under the FPA.[34] However, unlike tariff rates that are imposed unilaterally by public utilities on power purchasers, the Commission cannot break a bilateral power contract—that is, a wholesale contract between a public utility on the one hand and a buyer or seller of electricity on the other—unless it is in the "public interest" to do so. This doctrine, known as the "*Mobile-Sierra* Rule" after the Supreme Court precedents that spawned it,[35] takes the form of a legal presumption that the rate set by a bilateral power contract is "just and reasonable" unless it is found not to be in the "public interest" to deem it so.[36]

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[31] Ex. CAL-12 at 2:1-7 (Hart Direct); Ex. Cal-247 at 4:1-5 (Florio Direct).

[32] *CPUC v. Sellers of Long-Term Contracts*, 99 FERC ¶ 61,087 at 61,377.

[33] *Id*.

[34] 16 U.S.C. §§ 824d(a), 824e(a) (2013).

[35] *United Gas Pipe Line Co. v. Mobile Gas Service Corp.,* 350 U.S. 332 (1956); *Fed. Power Comm'n v. Sierra Pac. Power Co.*, 350 U.S. 348 (1956).

[36] *Morgan Stanley Capital Grp. Inc. v. Pub. Util. Dist. No. 1 of Snohomish Cnty., Wash.*, 554 U.S. 527, 530 (2008) (*Morgan Stanley*) (FERC "must presume that the rate set out in a freely negotiated wholesale-energy contract meets the 'just and reasonable' requirement imposed by law. The presumption may be overcome only if FERC concludes that the contract seriously harms the public interest.").

16. The Commission, in a 2003 ruling in this case, held that it was not in the public interest under the *Mobile-Sierra* Rule to break the power marketing contracts that CDWR had entered into with wholesale power sellers, including the CDWR-Shell and CDWR-Iberdrola contracts.[37] Following several years on appeal before the U.S. Court of Appeals for the Ninth Circuit and the U.S. Supreme Court, the *Mobile-Sierra* Rule, as it was initially applied to bilateral contracts involved in the California Crisis, was re-cast from its early precedents into its current form in the Supreme Court's decision in *Morgan Stanley Capital Grp. Inc. v. Pub. Util. Dist. No. 1 of Snohomish Cnty., Wash.* [38] In light of that legal development, this case was remanded to the Commission in 2008 for further action.[39] It is now here in accordance with the Commission's Order on Remand for this case.[40]

17. The questions to be decided here focus on the *Mobile-Sierra* Rule as reinterpreted by *Morgan Stanley*. [41] Specifically, those questions first ask whether the *Mobile-Sierra-Morgan Stanley* presumption of the justness and reasonableness of each of the contracts at issue is "avoided" by reason of unlawful activity on the part of each wholesale marketer in making its contract with CDWR. Alternatively, the next question asks whether the *Mobile-Sierra-Morgan Stanley* presumption is "overcome" by reason of the contract's burden on consumers or other harm to the public interest.

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[37] *CPUC v. Sellers of Long-Term Contracts*, 103 FERC ¶ 61,354, at P 3 (2003).

[38] *Nev. Power Co. v. Enron Power Mktg., Inc.*, 103 FERC ¶ 61,353 (2003), *rev'd sub nom. Pub. Util. Dist. No. 1 of Snohomish Cnty., Wash. v. FERC*, 471 F.3d 1053 (9th Cir. 2006), *aff'd and remanded sub nom. Morgan Stanley Capital Grp. Inc. v. Pub. Util. Dist. No. 1 of Snohomish Cnty., Wash.*, 554 U.S. 527 (2008), *remanded to FERC*, 547 F.3d 1081 (9th Cir. 2008).

[39] *CPUC v. Sellers of Long-Term Contracts,* 103 FERC ¶ 61,354 (2003), *reh'g denied*, 105 FERC ¶ 61,182 (2003), *rev'd sub nom. Pub.Utils. Comm'n of Cal. v. FERC*, 474 F.3d 587 (9th Cir. 2006), *vacated and remanded sub nom. Sempra Generation v. CPUC*, 554 U.S. 931 (2008), *remanded to FERC sub nom. Pub. Utils. Comm'n of Cal. v. FERC*, 550 F.3d 767 (9th Cir. 2008).

[40] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127 (2014) (Order on Remand).

[41] Henceforth, this presumption will be referred to generically as the "*Mobile-Sierra-Morgan Stanley*" rule or presumption.

C. Standard of Decision in This Administrative Proceeding

18. For the analysis to be done here, the Commission has directed this administrative proceeding to gather evidence on: (1) whether the sellers under a particular contract at issue engaged in unlawful market activity in the spot market; and, if so, (2) whether such activity had a direct effect on the negotiations of the contract at issue. Evidence is also to be gathered on: (3) the difference "down the line" between having the contracts at issue in effect and not having them in effect; and (4) whether that difference seriously harmed the public interest.[42] Issues (1) and (2) have generally been referred to as critical to "avoiding" the *Mobile-Sierra-Morgan Stanley* Rule, whereas issues (3) and (4) have been considered critical to "overcoming" the Rule.

19. Although the "avoiding" and "overcoming" elements of the *Mobile-Sierra Morgan Stanley* Rule are expressed in the alternative,[43] this Initial Decision will decide both elements, even if only one leads to a dispositive outcome, in order to reduce the need for a remand from the Commission.[44]

1. "Avoiding" the *Mobile-Sierra-Morgan Stanley* Rule As a Result of Unlawful Activity Affecting Contract

20. The Commission has directed in this case that a showing of unlawful activity in the spot market "must be determined based on the relevant laws, regulations, orders, and tariffs in effect at the time of the Western energy crisis."[45] It looks specifically to the CAISO and CalPX tariffs that were then in effect. These tariffs included a provision known as the Market Monitoring and Information Protocol or "MMIP."[46] The MMIP

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[42] *CPUC v. Sellers of Long-Term Contracts*, 150 FERC ¶ 61,079, at P 5 (2015) (Clarifying Order) (*citing* 149 FERC ¶ 61,127, at PP 22-23 (2014) (Order on Remand)).

[43] *See State of Cal. v. FERC*, 809 F.3d 491, 502 n.5 (9th Cir. 2015).

[44] *See Seaway Crude Pipeline Co. LLC*, 154 FERC ¶ 61,070, at P 34 (2016) ("When there are sufficient unanswered questions in the record, or outstanding issues that must be resolved before a proper decision can be made, remand is appropriate. Where instead the circumstances are that no useful purpose would be served by further administrative proceedings, or where the record has been fully developed, it is appropriate for the Commission to issue an order on initial decision.").

[45] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 24 (2014) (Order on Remand).

[46] *Id.*

barred all participants in the CAISO and CalPX markets from engaging in "gaming" or "anomalous behavior" in those markets. [47]

21. The Commission includes within the scope of relevant evidence of unlawful behavior "market practices and behaviors [that] constitute a violation of the then-current CAISO and CalPX and individual seller's tariffs, as well as Commission orders."[48] Complainants, when they allege unlawful spot market manipulation by the Respondents, are subject to a duty "to be specific when presenting their arguments and evidence on this issue; the Complainants are required to specify which tariff provision and/or portion of the tariff provision the Respondents' conduct violated." [49] Further, the Commission has specified that Complainants must demonstrate "a persistent reoccurrence of the same market activity in violation of the then-effective tariffs" that demonstrate a "pattern" of behavior.[50] Respondents, in turn, may counter with evidence that the activity in question was, in fact, legitimate business behavior. [51]

22. As to "whether such activity had a direct effect on the negotiations of the contract at issue," Complainants must show "a causal connection between an unlawful activity and the terms of the contracts." [52] More specifically, the Commission in this case requires "the Complainants, when presenting evidence of such a connection, [to] demonstrate that a particular seller engaged in unlawful manipulation in the spot market *and that such manipulation directly affected the particular contract to which the seller was a party*."[53] The direct effect must be one which "eliminates the premise on which the *Mobile-Sierra*

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[47] *Id.*

[48] *Id.* (citing *SDG&E v. Sellers*, 135 FERC ¶ 61,183, at P 31 (2011)).

[49] *Id*.

[50] *SDG&E v. Sellers*, 153 FERC ¶ 61,144, at P 30 (2015) (Order on Rehearing).

[51] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 25 (2014) (Order on Remand) (*citing Nevada Power Co. v. Enron Power Mktg, Inc.*, 125 FERC ¶ 61,312, at PP 26-27 (2008); *SDG&E v. Sellers*, 129 FERC ¶ 61,147, at PP 21-22 (2009)).

[52] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 23 (2014) (Order on Remand).

[53] *Id*. P 50.

presumption rests: that the contract rates are the product of fair, arms-length negotiations."[54]

23. "Arms-length negotiations" are considered to be ones in which the negotiating parties possess generally equivalent bargaining power relative to one another, in which case the results of negotiation may be viewed as the reasonable equivalent of what would emerge from a competitive market.[55] Hence, for a power seller's unlawful manipulation in the spot market to have "directly affected" its long term contract negotiation with CDWR to a degree that "eliminated" the premise of a "fair, arms-length negotiation," the unlawful activity must have upset the balance of bargaining power between CDWR and the seller.

24. "Direct effect" is difficult to demonstrate in the present case. This case differs significantly from previous California Energy Crisis cases that examined the impact of sellers' unlawful activities on spot market prices. In those, the unlawful activity involved spot pricing itself, and thus affected such prices directly.[56] In this case, by contrast, the impact on long term contract negotiations is attenuated – the unlawful activity directly affects spot market prices as in the earlier cases, but their ultimate impacts on long term contract negotiations may be either direct or indirect. Dysfunction in the spot market may have had direct impacts by inducing the parties to the contracts at issue to enter into long term deals improvidently, including by reason of fraud or duress. It may have had indirect effects whereby spot market prices influenced forward market prices to be unduly high, in turn prompting negotiators to agree to excessively high long term contract rates.[57]

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[54] *Morgan Stanley*, 554 U.S. at 554.

[55] *See Am. Soc. of Composers, Authors & Publishers v. Showtime/The Movie Channel, Inc.*, 912 F.2d 563, 584-585 (2d Cir. 1990).

[56] *See SDG&E v. Sellers*, 142 FERC ¶ 63,011, at PP 34, 35, 37, 62, 65 (2013) (Initial Decision), *aff'd*, 149 FERC ¶ 61,116, at PP 97, 102, 132, 176, 193, 200 (2014) (Opinion No. 536).

[57] Ex. CAL-717 at 106:3-8, 123:10-18 (Taylor Rebuttal) ("I shall later discuss how Shell's spot pricing impacted the Shell Contract negotiations both directly as the near-term alternative to the Shell Contract and indirectly through the elevation for forward contract prices that were of key importance in establishing contract terms.").

2. "Overcoming" the *Mobile-Sierra-Morgan Stanley* Rule As a Result of Burden on Consumers "Down the Line" or Serious Harm to the Public Interest

25. In *Morgan Stanley*, the Supreme Court held that where the presumption of justness and reasonableness that is afforded to bilateral contracts is not "avoided" by a reason of a respondent's unlawful activity in forming the contract, it may nevertheless be "overcome" when "an excessive burden on consumers" is shown.[58] The Court rejected a test suggested by the Ninth Circuit that an "excessive burden" on consumers is shown when the contract rate exceeds a "zone of reasonableness."[59] Such a test, the Supreme Court said, would do away with *Mobile-Sierra* contract protection altogether simply when the rate exceeds the marginal cost of producing power.[60] "A presumption of validity that disappears when the rate is above marginal cost is no presumption of validity at all, but a reinstitution of cost-based rather than contract based regulation," the Supreme Court remarked.[61]

26. Instead, the Supreme Court held that the *Mobile-Sierra* presumption can only be overcome upon a finding of "unequivocal public necessity" or "extraordinary circumstances." "In no way can these descriptions be thought to refer to the mere exceeding of marginal cost," it held.[62] "[E]xtraordinary circumstances where the public will be severely harmed"[63] are shown, the Supreme Court pointed out, by "determining whether the contracts imposed an excessive burden on consumers 'down the line,' relative to the rates they could have obtained (but for the contracts) after elimination of the dysfunctional market."[64]

27. The Commission, in its November 17, 2014 Order on Remand in this case, cast somewhat more light on the Supreme Court's penumbral "excessive burden on

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[58] *Morgan Stanley*, 554 U.S. at 552-553.

[59] *Id*. at 549-550.

[60] *Id*.

[61] *Id.* at 550.

[62] *Id.* at 550-551 (citations omitted).

[63] *Id.* at 551.

[64] *Id.* at 552.

consumers/harm to the public interest" test.[65] It determined that the Supreme Court's use of the term "down the line" meant "measured based on the life of the contract since the contracts in question have already expired." [66] It also decided that "[a] relevant factor in the down-the-line analysis is the cost of substitute power in the absence of the contracts."[67] An appropriate measure of the cost of substitute power, the Commission determined, "may be the actual market prices available at that time for comparable long-term contracts," together with evidence on how to account for "negotiated non-rate terms" in establishing a market price. [68]

28. The Commission cautioned, however, that "while evidence of the difference between market prices and the contract price is important, it is not dispositive." [69] Complainants here were instructed to submit evidence on "(1) given the contract, what consumers' rates were; (2) what consumers' rates would have been down the line in the absence of the contract; and (3) how the difference imposes an excessive burden on consumers." [70] "The impact on consumers," the Commission further noted, "is a key element of this analysis." [70]

29. In its February 9, 2015 Order on Request for Rehearing or Clarification, the Commission further elucidated that "evidence of non-parties' conduct may be introduced" when relevant to show that the contracts at issue impose an excessive burden on consumers.[71] However, the Commission admonished Complainants "to be very specific in [their] claims and arguments involving non-parties." [72] The Commission

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[65] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at PP 20-22 (2014) (Order on Remand).

[66] *Id.* P 20.

[67] *Id.* P 21.

[68] *Id.*

[69] *Id.* P 22.

[70] *Id*.

[70] *Id*.

[71] *CPUC v. Sellers of Long-Term Contracts*, 150 FERC ¶ 61,079, at P 14 (2015) (Clarifying Order).

[72] *Id.*

warned that it will not accept "general allegations of market dysfunction or high prices in the California markets," or "re-litigation of issues arising from non-parties' actions," and "will focus only on specific conduct by specific parties to the contracts at issue." [73]

D. Dismissal of Iberdrola

30. This proceeding is also tasked with determining whether the Commission properly dismissed Iberdrola from this case.[74] In an order issued on April 25, 2002, the Commission dismissed Complainants' allegations as to the sole Iberdrola contract at issue here on the ground that it was entered into after June 20, 2001, the date on which the Commission's WECC-wide wholesale price mitigation strategy for solving the Western Energy Crisis went into effect and forward prices declined.[75]

31. The Ninth Circuit reversed the Iberdrola dismissal on the ground that "FERC did not consider . . . whether some market dysfunction may have lingered after that order took effect."[76] The Supreme Court, however, summarily vacated the Ninth Circuit's ruling,[77] thereby rejuvenating the Commission's dismissal of Iberdrola. Nonetheless, the Commission has seen fit on this remand to revisit "whether Iberdrola was in fact improperly dismissed." [78]

E. Burden of Proof

32. The burden of proof to be applied in the Western Energy Crisis cases like this one has been described by the Commission as follows:

> [A]s the parties seeking contract abrogation, California Parties bear the burden of proof. The party with the burden of proof bears the burden of production, or the need to provide sufficient evidence to establish a *prima*

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[73] *Id.*

[74] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at PP 3, 5, 12, 13, 19 (2014) (Order on Remand), *aff'd on rehg*, 150 FERC ¶ 61,079, at n.11 (2015) (Clarifying Order).

[75] *CPUC v. Sellers of Long-Term Contracts*, 99 FERC ¶ 61,087, at 61,383 (2002).

[76] *Pub. Utils. Comm'n of Cal. v. FERC*, 474 F.3d 587, 596-597 (9th Cir. 2006).

[77] *Sempra Generation v. CPUC*, 554 U.S. 931 (2008).

[78] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 19 (2014) (Order on Remand).

> *facie* case. Once it establishes a *prima facie* case, the burden of going forward shifts to the opposing party; although the ultimate burden of proof remains with the proponent. The party bearing the burden of proof will prevail only if, when the record is closed, the preponderance of evidence supports its position.[79]

33. The Commission has underscored that "[t]he burden of proof, in the sense of the ultimate burden that rests upon a party to establish the truth of a given proposition, never shifts during the course of the trial, but remains from the first to the last with the party on whom the law cast it at the beginning of the trial."[80] The Complainants play that role here, with one exception: the Commission has said that "the Respondents accused of unlawful manipulation in this proceeding may submit evidence that the activity in question was, in fact, legitimate business behavior." [81]

F. Remedy

34. As for what remedy to impose, the Supreme Court in *Morgan Stanley* held that "FERC may abrogate a valid contract" that fails the *Mobile-Sierra-Morgan Stanley* test.[82] The Court made clear that avoiding or overcoming the *Mobile-Sierra-Morgan Stanley* Rule occurs only in "extraordinary circumstances" involving "unequivocal public necessity" where the contract "seriously harms" the public interest or imposes "an excessive burden on consumers."[83] In exercising its remedial authority, "the Commission's discretion is at its zenith."[84]

35. It should be noted that a showing of a "burden on consumers," as discussed above, is not the same as a showing of a "remedy." Parties may present evidence of a "burden on consumers" in the form of some dollar quantity or other measure, but that is only one way to demonstrate the existence of "extraordinary circumstances" or "unequivocal

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[79] *Puget Sound Energy v. All Jurisd. Sellers*, 151 FERC ¶ 61,173, at P 98 (2015) (Opinion No. 537).

[80] *ANR Storage Co.*, 153 FERC ¶ 61,052, at P 47 (2015).

[81] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 25 (2014) (Order on Remand).

[82] *Morgan Stanley*, 554 U.S. at 548.

[83] *Id*. at 530, 534, 547, 549 n.4, 550.

[84] *See Niagara Mohawk Power Corp. v. FPC*, 379 F.2d 153, 159 (D.C. Cir. 1967).

public necessity," which are intangible qualities that justify lifting the *Mobile-Sierra Morgan Stanley* presumption. The remedy to impose upon abrogating or reforming the contracts at issue is a different matter. In past Western Energy Crisis cases, such remedies have taken the form of refunds of spot price charges in excess of MMCP, which is not defined as a measure of "burden on consumers."[85]

36. This Initial Decision is not tasked with determining the appropriate restitution that Respondents must make to Complainants if any of the contracts at issue fail the *Mobile-Sierra-Morgan Stanley* test. Unlike other cases involving the Western Energy Crisis, [86] this proceeding has only been directed by the Commission to reopen the remanded record, to "hold a trial-type, evidentiary hearing" to supplement that record, and to issue "factual determinations" on the remanded issues on the basis of which the Commission can then "determine what further steps must be taken."[87]

G. Additional Considerations

37. The time period that constitutes the full period of the Western Energy Crisis is from May 1, 2000 (when the earliest spike in California spot market electricity prices occurred) through July 6, 2001 (when the CDWR-Iberdrola contract was signed), and is referred to in this Initial Decision as the "Crisis Period." Various intervals within that time period have been the focus of earlier cases about the Crisis.[88] In this case, frequent references are made to the period from October 2, 2000 through June 20, 2001, known as the "Refund Period," at the end of which FERC imposed price caps throughout the West. References are also made to the period from May 1, 2000 through October 1, 2000, known as the "Summer Period," which occurred at the outset of the Crisis. References are also made to the period from January 17 through July 6, 2001, known as the

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[85] *See*, *e.g.*, *SDG&E v. Sellers*, 149 FERC ¶ 61,116, at P 7 (2014) (Opinion No. 536).

[86] *See, e.g.*, *id*. PP 209 & 235 (restitution ordered).

[87] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at PP 1, 18, 19 (2014) (Order on Remand).

[88] *Puget Sound Energy v. All Jurisd. Sellers*, 151 FERC ¶ 61,173, at P 10 (2015) (Opinion No. 537) (covering bilateral wholesale energy contracts entered into in the Pacific Northwest spot market between December 25, 2000 and June 20, 2001); *SDG&E v. Sellers*, 149 FERC ¶ 61,116, at P 1 (2014) (Opinion No. 536) (covering the CalPX and CAISO markets during May 1, 2000 through June 21, 2001); *SDG&E v. Sellers*, 102 FERC ¶ 61,317, at P 1 (2003) (covering the CalPX and CAISO markets during October 2, 2000 through June 20, 2001).

"Negotiation Period," for the time during and shortly after the Crisis in which Shell and Iberdrola negotiated their long term contracts with CDWR. There is also an occasional reference to an "Interim Period" from October 2, 2000 through January 16, 2001.

38. This Initial Decision views the entire Crisis Period as a whole. Complainants' theory of the case, which they have the burden to prove, is that there is a nexus between unlawful activities affecting spot market prices that, in turn, affect long term contract negotiations. This nexus, if proved, spans the entire time period. It is assumed, therefore, that unlawful activity that took place at any time within that period can be attributed to the contracts at issue, irrespective of whether it occurred inside or outside of any lesser interval of time during the Crisis Period.[89]

39. This administrative proceeding arises on remand from the Commission's original decision in consolidated Docket Nos. EL02-60 and EL02-62, which it reached on the basis of its review of an evidentiary record that was developed by Administrative Law Judge Bobbie McCartney. [90] Although the subsequent Ninth Circuit appeals and related Supreme Court decision called into question the Commission's ultimate ruling in that case,[91] they did not question the evidentiary record that Judge McCartney collected. Here, the Commission expressly directs this proceeding "to supplement" that record.[92] Accordingly, that evidentiary record is incorporated by reference into the record in this proceeding and bears upon the findings of fact and conclusions of law reached here.[93]

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[89] *See* Tr. 2636:8-25 (McKeon Closing Arg.); Tr. 2730:19-2732:19 (Watkiss Closing Arg.).

[90] *CPUC v. Sellers of Long-Term Contracts*, 103 FERC ¶ 61,354 (2003), *aff'g* Partial Initial Decision, 102 FERC ¶ 63,013 (2003).

[91] *CPUC v. Sellers of Long-Term Contracts,* 103 FERC ¶ 61,354 (2003), *reh'g denied*, 105 FERC ¶ 61,182 (2003), *rev'd sub nom. Pub. Utils. Comm'n of Cal. v. FERC*, 474 F.3d 587 (9th Cir. 2006), *vacated and remanded sub nom. Sempra Generation v. CPUC*, 554 U.S. 931 (2008), *remanded to FERC sub nom. Pub. Utils. Comm'n of Cal. v. FERC*, 550 F.3d 767 (9th Cir. 2008).

[92] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 1 (2014) (Order on Remand).

[93] Exhibits in the record that bear identifying numbers below 200 (*i.e.*, Ex. CAL-51) were admitted by Judge McCartney in the 2002 hearing. Exhibits starting with 200 (*i.e.*, Ex. SNA-200) have been admitted in the 2015 hearing.

40. The omission from this Initial Decision of any argument raised by the participants at the hearing or in their briefs does not mean that it has not been considered. Rather, it has been evaluated and found to either lack merit or significance such that inclusion would only tend to lengthen this Initial Decision without altering its substance or effect. Accordingly, all arguments made by the participants that have not been specifically discussed or adopted by this decision have been considered and are rejected.

III. Procedural History

41. On January 13, 2016, the proceeding participants submitted a Joint Procedural History. This Joint Procedural History, with some modifications, is adopted by this Initial Decision as included below.

42. This case is before the Commission on remand from the United States Court of Appeals for the Ninth Circuit.[94] CPUC and EOB alleged in each complaint that the prices, terms, and conditions of the contracts were unjust and unreasonable and not in the public interest.[95]

43. In its April 25, 2002 order,[96] the Commission dismissed the February 25, 2002 CPUC and EOB allegations as to the contracts that were entered into after June 20, 2001 (of which the Iberdrola contract was one), and set for hearing the issues regarding the contracts entered into before that date.[97] The Commission's order specified that the hearing was to address "whether the dysfunctional California spot markets adversely affected the long-term bilateral markets, and, if so, whether modification [was warranted] of any individual contract at issue."[98] The Commission also instructed then-presiding

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[94] *Pub. Utils. Comm'n of Cal. v. FERC*, 550 F.3d 767 (9th Cir. 2008).

[95] *See* CPUC Complaint, Docket No. EL02-60-000 (February 25, 2002) and EOB Complaint, Docket No. EL02-62-000 (February 25, 2002). The original complaints involved many more parties, but Shell and Iberdrola are the only remaining Respondents in the instant proceeding.

[96] *CPUC v. Sellers of Long-Term Contracts*, 99 FERC ¶ 61,087 (2002) (April 25, 2002 Order).

[97] All of those sellers have since settled, with the exception of Shell.

[98] April 25, 2002 Order, 99 FERC ¶ 61,087, at 61,384. In differentiating the hearing from a concurrent staff investigation (Final Report on Price Manipulation in Western Markets, Docket No. PA02-2-000), the Commission stated that the contracts were being set for hearing "based on the arguments that the dysfunctional spot markets in California caused long-term contracts not to be reasonable, whereas the investigation *(continued ...)*

Administrative Law Judge McCartney to determine the applicable standard of review for those contracts that did not contain explicit *Mobile-Sierra* language.[99]

44. Judge McCartney issued a partial initial decision on January 16, 2003, in which she held that "the *Mobile-Sierra* standard of review applie[d] to a negotiated contract unless the contract expressly state[d] otherwise . . . ."[100] On June 26, 2003, the Commission affirmed Judge McCartney's holding with regard to the "public interest" standard of review. Finding that the CPUC and EOB had not met their burden of proof under that standard to justify modification or abrogation of the contracts at issue, the Commission denied their complaints.[101] The CPUC and EOB sought rehearing, which the Commission denied.[102] The CPUC and EOB then appealed.

45. On appeal, the Ninth Circuit reversed and remanded the Commission's prior orders, finding that the Commission incorrectly applied the *Mobile-Sierra* precedent when it concluded that the challenged contracts were just and reasonable, and that the Commission erred in dismissing Iberdrola from the proceedings.[103]

46. The Respondent sellers petitioned the Supreme Court for *certiorari*. The Supreme Court did not initially grant *certiorari* in this proceeding, but did in *Morgan Stanley*, involving a companion case with similar facts, arguments, and parties.[104] The *Morgan*

[looked] at whether there was improper behavior by sellers that may have caused prices not to be reasonable." April 25, 2002 Order, 99 FERC ¶ 61,087, at 61,383 n.28.

[99] *Id.* at 61,384. *See United Gas Pipe Line Co. v. Mobile Gas Serv. Corp.*, 350 U.S. 332 (1956), *Federal Power Comm'n v. Sierra Pac. Power Co.*, 350 U.S. 348 (1956); *CPUC v. Sellers of Long-Term Contracts*, 102 FERC ¶ 61,025, at P 13 (2003) (contract rates for wholesale energy sales are presumed to be just and reasonable, but the presumption can be overcome if the contract seriously harms the public interest).

[100] *CPUC v. Sellers of Long-Term Contracts*, 102 FERC ¶ 63,013, at P 45 (2003).

[101] *CPUC v. Sellers of Long-Term Contracts*, 103 FERC ¶ 61,354, at P 3 (2003).

[102] *CPUC. v. Sellers of Long-Term Contracts*, 105 FERC ¶ 61,182 (2003).

[103] *Pub. Utils. Comm'n of Cal. v. FERC*, 474 F.3d 587 (9th Cir. 2006).

[104] *Morgan Stanley*, 544 U.S. 527. *Morgan Stanley* involved a petition for *certiorari* filed by Morgan Stanley Capital Group and other sellers of the referenced companion case, *Pub. Util. Dist. No. 1 of Snohomish County v. FERC,* 471 F.3d 1053 (9th Cir. 2006).

Stanley majority held that the just and reasonable standard applies in the case of rates set by contract,[105] but is avoided where "it is clear that one party to a contract engaged in such extensive unlawful market manipulation as to alter the field for contract negotiations . . . ."[106] The Supreme Court further explained that if the *Mobile-Sierra* presumption applies to a contract, the presumption may be overcome if the contracts imposed an excessive burden on consumers "'down the line,' relative to the rates they could have obtained (but for the contract) after elimination of the dysfunctional market,"[107] or otherwise seriously harmed the public interest.[108]

47. Immediately after the decision in *Morgan Stanley*, the Supreme Court granted the petitions for *certiorari* in this case and remanded back to the Ninth Circuit its decision that the Commission had mistakenly applied the *Mobile-Sierra* precedent here.[109] As a consequence, the Ninth Circuit vacated its decision in this proceeding and remanded back to the Commission "for proceedings consistent with the Supreme Court's rulings" in *Morgan Stanley*.[110] Subsequently, CPUC and most of the remaining suppliers in these proceedings entered into settlements, which the Commission has approved.[111] Shell and Iberdrola are the only remaining Respondents.

48. On remand, the Commission ordered "a trial-type evidentiary hearing" to supplement the existing record in this proceeding in light of the Supreme Court's decision in *Morgan Stanley*.[112] The Commission reopened the record for evidence on whether the *Mobile-Sierra* presumption of just and reasonableness was avoided or

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[105] *Morgan Stanley*, 554 U.S. at 545.

[106] *Id.* at 554.

[107] *Id.* at 552.

[108] *Id.* at 553.

[109] *See Sempra Generation v. CPUC*, 554 U.S. 931 (2008).

[110] *Pub. Utils. Comm'n of Cal. v. FERC*, 550 F.3d 767 (9th Cir. 2008).

[111] *See, e.g., CPUC v. Sellers of Long-Term Contracts*, 141 FERC ¶ 61,092 (2012) (approving settlement between certain Dynegy entities and CPUC); *CPUC v. Sellers of Long-Term Contracts*, 133 FERC ¶ 61,245 (2010) (approving settlement between Sempra Generation and CPUC and CDWR).

[112] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 1 (2014) (Order on Remand).

overcome with respect to the Shell and Iberdrola contracts and whether Iberdrola is a proper party in this proceeding.[113] The California Parties requested clarification or, in the alternative, rehearing of the Commission's Order on Remand regarding the scope of evidence permitted.[114] The Commission "provide[d] certain clarifications regarding the scope of the hearing" in its Clarifying Order.[115]

49. On December 5, 2014, the Chief Administrative Law Judge set this proceeding for hearing under Track II Procedural Time Standards and assigned the undersigned to preside.[116]

50. The Parties submitted a discovery plan and request for extension of the procedural schedule, which the Presiding Judge adopted on December 29, 2014.[117]

51. On February 24, 2015, the parties jointly submitted the Official 2002 Record of this proceeding to the Presiding Judge.

52. On March 12, 2015, oral argument was held on the California Parties' motion to compel[118] relating to audio recordings and request for extension of the procedural schedule. The Presiding Judge granted the California Parties' motion to compel and extended the procedural schedule on March 16, 2015, pursuant to which the hearing commencement date was postponed from September 8 to November 9, 2015.[119]

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[113] *Id.* PP 16, 19.

[114] California Parties Request for Clarification or Rehearing, Docket Nos. EL02-60, *et al.* (Dec. 17, 2014).

[115] *CPUC v. Sellers of Long-Term Contracts*, 150 FERC ¶ 61,079, at P 9 (2015) (Clarifying Order).

[116] Order of Chief Judge Designating Presiding Administrative Law Judge and Establishing Track II Procedural Time Standards, Docket Nos. EL02-60, *et al.* (Dec. 5, 2014).

[117] Order Adopting Discovery Plan, Docket Nos. EL02-60, *et al.* (Dec. 29, 2014); Order Adopting Procedural Schedule, Docket Nos. EL02-60, *et al.* (Dec. 29, 2014).

[118] California Parties' Motion (1) to Compel Shell to Expedite Production of Audio Recordings (2) for Modification of the Procedural Schedule, and (3) for Expedited Consideration, Docket Nos. EL02-60, *et al.* (Mar. 4, 2015).

[119] Order Compelling Discovery Responses and Adopting Amended Procedural Schedule, Docket Nos. EL02-60, *et al.* (Mar. 16, 2015).

53. On May 19, 2015, the California Parties filed Direct Testimony. On July 21, 2015, Shell and Iberdrola filed Answering Testimony. On September 4, 2015, Commission Trial Staff filed Answering Testimony. On October 6, 2015, the California Parties filed Rebuttal Testimony.

54. On October 22, 2015, the Presiding Judge issued a revised Order on Hearing Procedures implementing e-trial procedures.[120] On October 26, 2015, the parties submitted a joint statement of issues. The parties submitted prehearing briefs on November 2, 2015.

55. A conference to set up computer technology was held on November 6, 2015 pursuant to the previous October 22, 2015 order.

56. The hearing began on November 10, 2015, with oral argument concerning the California Parties' October 6, 2015 motion to compel and request for sanctions relating to missing audio recordings. The Presiding Judge granted the California Parties' request for sanctions against both Shell and Iberdrola and issued an order to that effect on November 13, 2015.[121] The evidentiary hearing commenced on the afternoon of November 13, 2015, and concluded on December 4, 2015.

57. On December 8, 2015, the Acting Chief Administrative Law Judge issued an order extending the briefing schedule.[122]

58. On December 11, 2015, the parties submitted the joint final exhibit list.

59. On December 15, 2015, the California Parties filed an unopposed motion to reopen the record to correct certain hearing exhibits, which the Presiding Judge granted on December 16, 2015.[123]

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[120] Revised Order Adopting Rules for the Conduct of the Hearing, Docket Nos. EL02-60, *et al.* (Oct. 22, 2015).

[121] Order Memorializing November 10, 2015 Bench Ruling on Motion to Compel Production of Audio Recordings and Request for Sanctions, Docket Nos. EL02-60, *et al.* (Nov. 13, 2015).

[122] Order of Chief Judge Extending Briefing and Initial Decision Deadline, Docket Nos. EL02-60, *et al.* (Dec. 8, 2015).

[123] Order Granting California Parties' Motion to Reopen the Record, Docket Nos. EL02-60, *et al.* (Dec. 16, 2015).

60. On January 13 and February 16, 2016, post-hearing initial and reply briefs were filed respectively. On March 3, 2016, the parties presented closing oral arguments to the Judge.

IV. Issue One: Whether Iberdrola Should Be a Party in this Proceeding?

61. In an order issued on April 25, 2002, the Commission set for hearing a number of complaints that the California Parties had lodged against several sellers, including Iberdrola, which was known at the time as PacifiCorp Power Marketing, Inc. (PPM).[124] PPM's contract with CDWR, however, was not included among the contracts that the Commission set for hearing in that Order because it had been negotiated before but executed after June 20, 2001, the date that the Commission's final price mitigation order went into effect.[125] According to the Commission, the California Parties had offered the Commission "no evidence showing that CDWR was bound to proceed with execution of the contracts after the West-wide mitigation went into effect. Contracts entered into after the date the West-wide mitigation went into effect are not set for hearing, since the effect of the West-wide mitigation was to stabilize prices." [126]

62. Upon review of the April 25, 2002 Commission Order, the U.S. Court of Appeals for the Ninth Circuit reversed and remanded the Commission's dismissal of PPM.[127] According to the Court, FERC's decision not to adjudicate contracts executed after June 20, 2001 did not consider "whether some market dysfunction may have lingered after that order took effect. . . . It is not at all clear that the forward markets had stabilized by the date when the parties entered the PPM contract." [128]

63. The Ninth Circuit's decision, in turn, was vacated and remanded by the U.S. Supreme Court on June 27, 2008, in light of its issuance of the *Morgan Stanley* decision.[129] The Ninth Circuit thereupon remanded the case back to FERC.[130] The Commission's Order on Remand instituting this proceeding followed. [131]

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[124] *CPUC v. Sellers of Long-Term Contracts*, 99 FERC ¶ 61,087, at 61,383 (2002).

[125] *SDG&E v. Sellers*, 95 FERC ¶ 61,418, at 62,548 (2001).

[126] *CPUC v. Sellers of Long-Term Contracts*, 99 FERC ¶ 61,087, at 61,383-61,384 (2002).

[127] *Pub. Utils. Comm'n of Cal. v. FERC*, 474 F.3d 587, 596-597 (9th Cir. 2006).

[128] *Id.* at 587, 597.

[129] *Sempra Generation v. CPUC*, 554 U.S. 931 (2008).

64. The Commission has decided to revisit its dismissal of PPM here. "While the Ninth Circuit's opinion was subsequently vacated by the Supreme Court," the Commission said in its Order instituting this proceeding, "that was due to errors in the court of appeals' interpretation of the operation of the *Mobile-Sierra* presumption. Accordingly, we believe that the Ninth Circuit's decision warrants a review of whether Iberdrola was in fact improperly dismissed. The Commission therefore will allow the parties to present evidence to address whether or not Iberdrola should be a party to this proceeding."[132]

65. Irrespective of any significance attributable to the Commission's initial dismissal of Iberdrola or the Supreme Court's subsequent vacatur, we are bound by the Commission's order that "the Ninth Circuit's decision warrants a review" here. [133] What must be addressed here, then, is whether the once-dysfunctional spot market no longer affected negotiations for the contract between CDWR and Iberdrola after the Commission's West-wide price mitigation went into effect on June 20, 2001, or if instead that dysfunction lingered after the Commission Order took effect and had an impact on those negotiations.

66. On June 20, 2001, the date that the Commission's West-wide price mitigation plan went into effect, the "non-reserve deficiency" price cap for spot market sales, which was also the maximum price for negotiated bilateral contracts imposed by the Commission's plan, stood at $91.87/MWh, and remained at that level through December 19, 2001.[134] This price cap represented 85 percent of the highest hourly Stage 1 "reserve deficiency" price declared on May 31, 2001 of $108/MWh, as declared by the Commission's plan.[135]

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[130] *Pub. Utils. Comm'n of Cal. v. FERC*, 550 F.3d 767 (9th Cir. 2008).

[131] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127 (2014) (Order on Remand).

[132] *Id.* P 19.

[133] *Seaway Crude Pipeline Co. LLC*, 154 FERC ¶ 61,070, at P 23 (2016) ("When the Commission calls on an ALJ, on remand, to accept the agency's reading of the applicable law, the ALJ is bound to follow that instruction.").

[134] Ex. CAL-227 at 16 (CAISO, *Third Annual Report on Market Issues and Performance* (January 2002)).

[135] *Id*. at 16 n.5.

67. Negotiations between Iberdrola and CDWR began on January 24, 2001 and ended with execution of the contract on July 6, 2001.[136] When they concluded, the final deal provided, *inter alia*, for Iberdrola to deliver to CDWR: (i) 150 MW of 7x24 firm energy (that is, delivered seven days per week, 24 hours per day) at $70/MWh from July 1, 2001 through June 30, 2002; and (ii) 200 MW at $70/MWh from July 1, 2002 through December 31, 2002. [137] As of the date of execution of the contract, forward prices in the CAISO SP-15 zone stood at approximately $50/MWh for 2002 and 2003 deliveries. [138] Spot electric prices in the SP-15 zone as of the execution date stood at approximately $97/MWh. [139]

68. Iberdrola was further required under the contract to deliver to CDWR 200 MW from January 1, 2003 through June 30, 2004 and 300 MW from July 1, 2004 through the end of the contract term on June 30, 2011, priced according to a "tolling" arrangement.[140] In a "tolling contract," the buyer has the option to dispatch a generation resource at any time, and to use that generation resource to convert a fuel supply into electricity at a guaranteed conversion rate (known as the "heat rate"). In exchange for this right, the buyer agrees to pay the seller a "capacity" payment that compensates the seller for providing the buyer the option to dispatch the plant. Thus, the product being sold in a tolling agreement is plant capacity, not energy.[141] In this instance, Iberdrola provided CDWR dispatching rights to its Klamath cogeneration facility.[142]

69. The CDWR-Iberdrola contract, as finally negotiated, achieved a price for power that was well below the Commission's then-existing West-wide mitigation cap of $91.87/MWh. There is no reason, therefore, why CDWR would not have been "bound to proceed with execution of the [Iberdrola contract] after the West-wide mitigation went into effect," as the Commission asserted was its reason for dismissing Iberdrola, because

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[136] Ex. CAL-210 at 16:12-17:1 (Hart Direct); Ex. CAL-41 (Iberdrola Contract).

[137] Ex. IB-200 at 12:1-17 (Harlan Answering); Ex. CAL-210 at 18:10-15 (Hart Direct); Ex. CAL-41 (Iberdrola Contract).

[138] Ex. CAL-604 at 25, fig.5 (Goldberg Direct).

[139] *Id*.

[140] Ex. IB-200 at 12:1-17 (Harlan Answering); Ex. CAL-210 at 18:10-15 (Hart Direct); Ex. CAL-41 (Iberdrola Contract).

[141] Ex. IB-222 at 9:1-5 (Cavicchi Answering).

[142] Ex. IB-200 at 13:1-12 (Harlan Answering).

the cap did not override the contract rate.[143] The Commission's rationale, then, did not support dismissing Iberdrola from this case.

70. Moreover, the fact that the CDWR-Iberdrola contract price benefitted CDWR because it was below the West-wide mitigation cap does not justify dismissing Iberdrola either. In *Morgan Stanley*, the Supreme Court stated:

> [I]t is entirely possible that rates had increased so high during the energy crises because of dysfunction in the spot market that, even with the acknowledged decrease in rates [resulting from CDWR's negotiation of forward contracts], consumers still paid more under the forward contracts than they otherwise would have. If that is so, and if that increase is so great that, even taking into account the desirability of fostering market-stabilizing long term contracts, the rates impose an excessive burden on consumers or otherwise seriously harm the public interest, the rates must be disallowed.[144]

71. Immediately before the onset of the Western Energy Crisis, the wholesale spot electric price in California averaged $34/MWh, and after it was over, the spot price averaged $32/MWh.[145] Hence, the West-wide mitigation cap of $91.87/MWh and the price agreed by CDWR and Iberdrola of $70/MWh represented significant increases in price compared to what consumers paid before the dysfunction in the spot market began and after the dysfunction was over, even though they were below the peak prices that were paid during the Crisis.

72. As a result, it is possible, as the Ninth Circuit surmised, that the dysfunction in the spot market indeed "lingered" long enough to inflate prices and influence negotiations between Iberdrola and CDWR. The Supreme Court in *Morgan Stanley* did not expressly contravene the Ninth Circuit on this point.[146] Thus, Iberdrola should not have been

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[143] *CPUC v. Sellers of Long-Term Contracts*, 99 FERC ¶ 61,087, at 61,383-61,384 (2002).

[144] *Morgan Stanley*, 557 U.S. at 553 (internal punctuation and citations omitted).

[145] Ex. CAL-90 at 15:10-21 (Stoft Direct).

[146] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 19 ("While the Ninth Circuit's opinion was subsequently vacated by the Supreme Court, that was due to errors in the court of appeals' interpretation of the operation of the *Mobile-Sierra* presumption. Accordingly, we believe that the Ninth Circuit's decision warrants a review of whether Iberdrola was in fact improperly dismissed.").

dismissed from the case out of hand without first evaluating whether "that increase is so great that, even taking into account the desirability of fostering market-stabilizing long term contracts, the rates impose an excessive burden on consumers or otherwise seriously harm the public interest." [147]

73. Accordingly, the dismissal of Iberdrola was incorrect. Its contract with CDWR, then, will receive a full *Mobile-Sierra Morgan Stanley* analysis here.

V. Issue Two: Whether the *Mobile-Sierra-Morgan Stanley* Rule Applies to the Contracts at Issue?

A. Whether Respondent Sellers Engaged in Unlawful Market Activity That Had a Direct Effect on the Negotiations of the Contracts at Issue, Such That the *Mobile-Sierra-Morgan Stanley* Rule Is Avoided?

74. The Crisis began in earnest in late May 2000 and remained intense through late May of 2001, when it suddenly relented. Prior to its start, the spot price of electricity averaged $34/MWh. After it was over, the spot price averaged $32/MWh. During the Crisis year, however, the spot price averaged $201/MWh.[148] The average wholesale price in the spot market in January 2001 reached $320/MWh, with prices in on-peak hours frequently exceeding $400/MWh, and at times exceeding $1,000/MWh.[149]

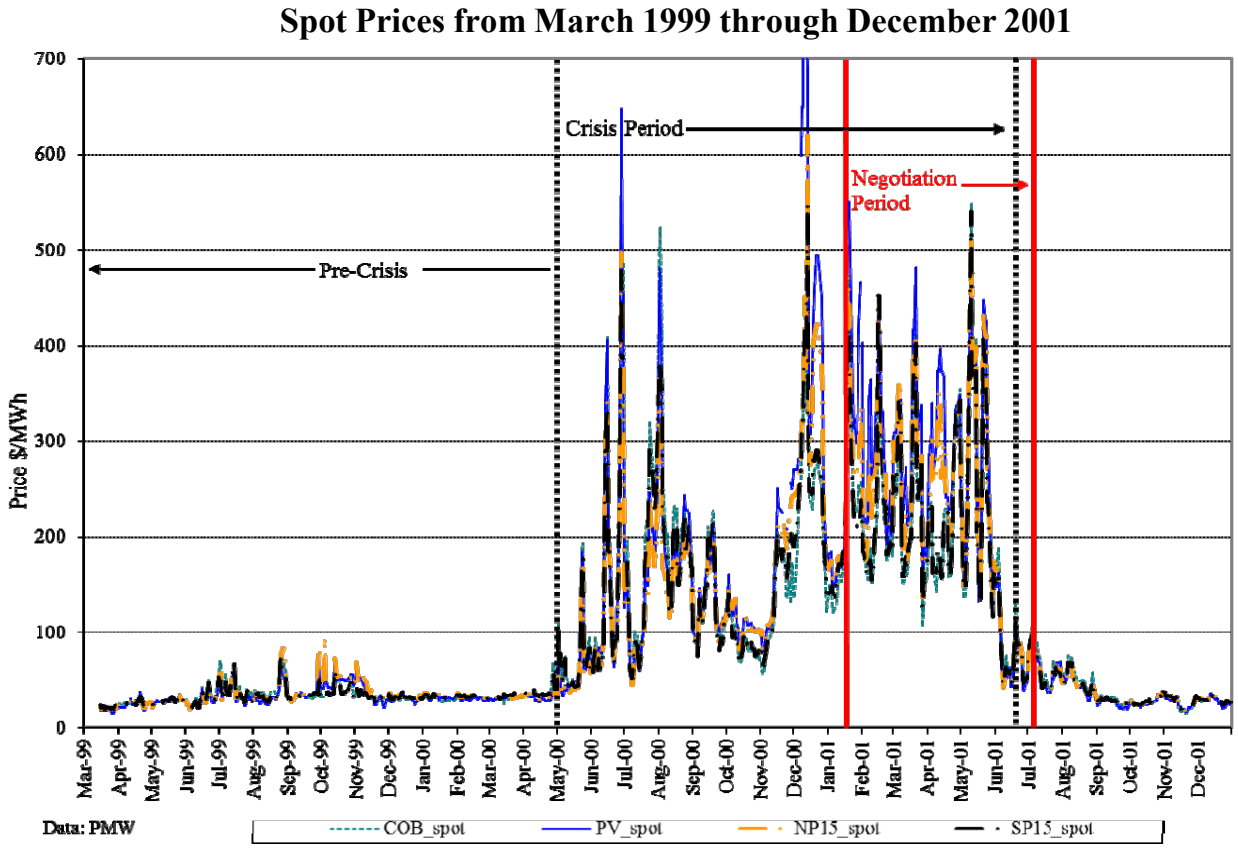
75. The following chart shows starkly how wholesale electricity prices acted during the Crisis compared to the norm in the spot market both beforehand and afterward: [150]

[147] *Morgan Stanley*, 557 U.S. at 553 (internal punctuation and citations omitted).

[148] Ex. CAL-90 at 15:10-21 (Stoft Direct); Ex. CAL-604 at 17, fig.1 (Goldberg Direct).

[149] Ex. CAL-200 at 5:5-8 (Nichols Direct).

[150] Ex. CAL-604 at 17, fig.1 (Goldberg Direct).



76. By 2002, evidence came to light about manipulative schemes that were carried on in the California spot markets during the Crisis Period by then-bankrupt marketer Enron, Inc.[151] It then came to light that these schemes were practiced by other marketers as well, including Shell. It is notable in this regard that Carey Morris, an Enron trader, moved to Shell's San Diego trading operation at the beginning of the Crisis and took on a supervisory role, guiding Shell traders in the same sort of schemes that Enron had perpetrated and bringing along Enron's former municipal utility partners, the cities of Glendale and Colton, California, to carry them out.[152]

77. These artifices violated several provisions of the CAISO Tariff that were set forth in its Market Monitoring and Information Protocol (MMIP).[153] The MMIP was the set of

[151] Ex. CAL-302 at 2-22 (December 6, 2000 Enron Memos).

[152] Ex. CAL-285 at 35:16-20, 55:1-6 (Taylor Direct); Ex. CAL-319 at 25:1-6 (Taylor Direct).

[153] *Am. Elec. Power Serv. Corp.*, 103 FERC ¶ 61,345, at PP 35, 37-55 (2003), *reh'g denied*, 106 FERC ¶ 61,020 (2004).

rules that outlined the appropriate market behavior for participants in the organized auction market. The Commission has the authority to enforce these rules.[154]

1. Shell Contract

78. Since 2002, the Commission has recognized that the Enron-type manipulative activities that Shell and other marketers pursued in the California spot markets during the Crisis Period raised prices in those markets.[155] It comes as no surprise that more recent litigation on the Western Energy Crisis has focused blame for excessive prices on the pervasiveness of these unlawful practices in lieu of the systemic causes that were believed at an earlier time to be at fault.[156]

a. Unlawful Spot Market Activities

79. In order to prevail on the "avoidance" prong of the *Mobile-Sierra-Morgan Stanley* Rule, the Commission's Order on Remand requires Complainants to show that "the seller under a particular contract at issue in this proceeding engaged in unlawful market activity in the spot market."[157] Complainants, through the testimony of their expert witness, Gerald A. Taylor,[158] identify seven unlawful activities in the California spot market for

[154] *Id.* P 23 ("The MMIP puts market participants on notice regarding their rights and obligations in the marketplace. It serves as the rules of the road for market participants. It also contemplates that these rules will be enforced by the Market Surveillance Unit, in the form of monitoring and reporting, or by the appropriate body or bodies (including this Commission), in the form of corrective actions.").

[155] With regard to the impact of fuel costs, for example, FERC Staff, in its 2003 Report, realized that "the investigation has identified evidence of gas market dysfunction, speculative trading, and index misreporting. These factors, in addition to the linkage between gas and electric markets, resulted in artificially high gas prices." Ex. CAL-291 at 175 (FERC Staff, *Final Report on Price Manipulation in Western Markets*, Docket No. PA02-2-000 (March 2003)).

[156] Before the Enron disclosures, the Commission in the early stage of this proceeding had concluded that "there is nothing in the record, in the Staff Report, or in the 100-Day Discovery Proceeding evidence to support a finding that there was market manipulation specific to the long-term contract negotiations resulting in prices and terms being challenged here." *CPUC v. Sellers*, 103 FERC ¶ 61,354, at P 61 (2003).

[157] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 23 (2014) (Order on Remand).

[158] Exs. CAL-285 and CAL-319 (Taylor Direct); Ex. CAL-717 (Taylor Rebuttal).

electricity that they claim were perpetrated by Shell and others during the Crisis Period. They are: (i) anomalous bidding; (ii) circular scheduling; (iii) phantom ancillary services; (iv) false export, abetted by illicit parking; (v) shorting generation; (vi) false load and load shift; and (vii) noncompliant quarterly reporting. Shell's expert witness, Dr. Craig Pirrong, an economist, challenges Taylor's findings.[159]

80. Of the seven unlawful Shell activities identified by Taylor, only three have ever been shown to have tangible effects on price levels in the electricity spot market during the Crisis Period. These are: (i) anomalous bidding of types 2 and 3; (ii) false export; and (iii) false load scheduling. They were shown in the *SDG&E* case to raise spot market-clearing prices.[160] No evidence was presented by Complainants in *SDG&E* or here of price effects for any of the other unlawful activities that Shell is alleged to have committed.

81. Complainants' theory of the case is that Respondents' unlawful activities raised spot market prices, and that those elevated prices in turn raised forward market prices.[161] If an unlawful activity has not been shown to have a price effect in the spot market, it follows that there can be no showing that it had an impact on prices in the forward market. Accordingly, it is only necessary to examine here the three unlawful Shell activities that Complainants have shown to have raised spot market-clearing prices.

82. Conversely, if a price effect for a particular unlawful activity is shown, its impact on the spot market is not necessarily limited to that one price spike. In a recent decision in the *SDG&E* case, the Commission clarified that a remedial refund from a particular seller was not limited to the hours during the Summer Period in which that seller committed tariff violations.[162] Instead, that seller must disgorge overcharges it received for *all* of its sales during *all* hours of the Summer Period during which the market prices were inflated by tariff violations committed by *any* of the Respondents.[163] The Commission noted that "price shocks in markets can be perpetuated by changing seller

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[159] Ex. SNA-230 (Pirrong Answering).

[160] *SDG&E v. Sellers*, 149 FERC ¶ 63,011, at PP 14, 34, 35, 37, 58, 62, 63 (2013) (Baten, J.), *aff'd*, 149 FERC ¶ 61,116, at PP 57, 62, 97, 102, 120, 127, 174, 176 (2014) (Opinion No. 536); Tr. 2650:4-13 (McKeon Closing Arg.).

[161] Complainants Post-hearing Initial Br. at 54-62; Complainants Post-hearing Reply Br. at 5-9.

[162] *SDG&E v. Sellers*, 154 FERC ¶ 61,063, at PP 2-4 (2016).

[163] *Id.* P 8.

behavior," and that there can be "significant inter-temporal effects to the . . . tariff violations due to price persistence following tariff violations." [164] Sellers "were behaving as tacit colluders and adjusting their behavior in response to changes in supply offers," the Commission held.[165] Hence, such price spikes "were not isolated incidents."[166] Although this decision addressed the issue of remedy, an aspect of the long term contract case that is not before this administrative proceeding, [167] it suggests that even isolated price effects of particular unlawful activities can be sufficiently disruptive of spot market price levels to influence a wide range of forward prices as well.

83. Complainants also contend, through the testimony of their expert witness, economist Dr. Carolyn A. Berry,[168] that Shell unlawfully manipulated natural gas forward prices by falsifying reports of natural gas contracts that they provided to gas price index publishers during the Negotiation Period of the CDWR long term contract.[169] According to Berry, natural gas prices have a direct effect on electricity forward prices, and therefore Shell's manipulative activity, together with the same widespread practice of other sellers, distorted long term electricity contract negotiations with CDWR.[170] Shell's expert witness, Dr. Randal Heeb, an economist, questions Berry's findings.[171]

i. Anomalous Bidding

84. "Anomalous bidding" is a term that is used to describe strategies that were employed by traders in the CalPX and CAISO markets when submitting offers to furnish electricity. Several of the other strategies that are described below were used in

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[164] *Id.* P 10.

[165] *Id.*

[166] *Id.* P 11.

[167] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at PP 1, 18, 19 (2014) (Order on Remand).

[168] Ex. CAL-268 (Berry Direct); Ex. CAL-706 (Berry Rebuttal).

[169] Ex. CAL-268 at 3:5-4:4 (Berry Direct).

[170] Ex. CAL-268 at 5:17-6:10, 11:3-12:2, 13:10-17, 21:6-20 (Berry Direct).

[171] Ex. SNA-265 (Heeb Answering).

conjunction with anomalous bidding in order to manipulate market prices. Generally speaking, anomalous bids were bids that departed from normal competitive patterns.[172]

85. The CalPX and CAISO markets operated as single-price auctions. "No matter how low or how high a bid was for a bidding hour, the resulting market clearing price for a particular bidding hour was the price per MWh that all bidders received for their bids."[173] The market clearing price that they would receive was the highest bid in dollars per MWh accepted for that hour. "All bids were accumulated in a stack known as the Balancing Energy and Ex Post (BEEP) stack. The CAISO then dispatched the energy, which these bids represented, from the lowest price to highest price until all energy requirements for that hour were satisfied." [174]

86. Anomalous bidding strategies used by traders, including Shell, in these markets fell into three categories. "Type 1" anomalous bids featured a portion of a bid that was offered at an extremely high price that was well in excess of the marginal cost of producing the electricity that the seller was bidding into the market at the given hour. If accepted, such a bid had the effect of elevating the market clearing price for all sales made in the same bidding hour.[175]

87. "Type 2" anomalous bids were bids above marginal cost offered in conjunction with some other strategy, such as false export or false load. The purpose of such bids was to place energy into the real-time market on a "price-taker" basis. The real-time market structure would set the price that the seller must accept, hence the name "price-taker." However, by engaging in anomalous bidding of this type, the seller maneuvered the structure into elevating the price excessively. The seller effectively became a "price-maker" instead of a "price-taker."[176]

88. "Type 3" anomalous bids were bids that were priced far above marginal costs that the seller never expected to be accepted. These were actually a form of economic withholding of electric supply.[177]

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[172] Ex. CAL-285 at 37:10 (Taylor Direct).

[173] *SDG&E v. Sellers*, 142 FERC ¶ 63,011, at P 15 (2013) (Initial Decision).

[174] *Id*.

[175] Ex. CAL-285 at 38:3-6 (Taylor Direct).

[176] *Id*. at 38:7-15.

[177] *Id*. at 39:1-3.

89. The Commission found in the *SDG&E* case that type 1 anomalous bids violated sections 2.1.1 and 2.1.1.4 of the CAISO MMIP because they were consistently priced too high and were used to exploit shortages in supply in the CAISO real-time market.[178] MMIP sections 2.1.1, entitled "Anomalous Market Behavior," and subsection 2.1.1.4 provided in pertinent part**:**

> Anomalous market behavior . . . is defined as behavior that departs significantly from the normal behavior in competitive markets that do not require continuing regulation or as behavior leading to unusual or unexplained market outcomes. Evidence of such behavior may be derived from a number of circumstances, including:
> * * *
> pricing and bidding patterns that are inconsistent with prevailing supply and demand conditions, *e.g.,* prices and bids that appear consistently excessive for or otherwise inconsistent with such conditions . . . .[179]

90. The Commission also found that type 2 anomalous bids, in addition to violating MMIP sections 2.1.1 and 2.1.1.4, also violated section 2.1.3's prohibition on "gaming."[180] Gaming consisted of "taking unfair advantage of the rules and procedures [of CalPX and CAISO], or of transmission constraints in periods in which exist substantial Congestion, to the detriment of the efficiency of, and of consumers in, the [CA]ISO Markets." It also included "taking undue advantage of other conditions that may affect the availability of transmission and generation capacity, such as loop flow, facility outages, level of hydropower output or seasonal limits on energy imports from out-of-state, or actions or behaviors that may otherwise render the system and the [CA]ISO Markets vulnerable to price manipulation to the detriment of their efficiency."[181]

91. The Commission further held in *SDG&E* that type 3 anomalous bids violated MMIP sections 2.1.1.1 and 2.1.3 because economic withholding reduced the available supply to CAISO and increased the market-clearing price. In particular, section 2.1.1.1 prohibited the "withholding of generation capacity under circumstances in which it would normally be offered in a competitive market," and section 2.1.3 prohibited "behaviors

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[178] *SDG&E v. Sellers*, 149 FERC ¶ 61,116, at P 58 (2014) (Opinion No. 536).

[179] *Id.* P 58 n.126.

[180] *Id.* P 61.

[181] *Id*. P 61 n.135.

that may render the system and the [CA]ISO Markets vulnerable to price manipulation to the detriment of efficiency." [182]

92. In the *SDG&E* case, Judge Baten found, and in Opinion No. 536 the Commission affirmed, that Shell had engaged in type 2 and type 3 anomalous bidding practices in the CalPX and CAISO markets during the relevant period in that case that had an impact on the market-clearing price.[183] Although the Commission also found that Shell engaged in type 1 anomalous bidding in those markets, it found no violation for those actions because the Complainants did not show that they had any effect on the market-clearing price.[184] In the *Puget Sound Energy* case, anomalous bidding was not an issue for the California Parties.[185]

93. Shell's expert witness, Pirrong, points out in his answering testimony that Complainants have not shown Shell to have engaged in anomalous bidding practices during the Interim or Negotiation Periods, nor have they submitted any evidence that this practice had any effect on spot market prices during those periods, nor have they submitted any evidence that anomalous bidding affected the rates agreed in, or negotiations for, the CDWR-Shell contract.[186]

94. As already stated earlier herein, the entire Crisis Period is viewed as a whole. Unlawful activities occurring during the Summer Period, for example, could have affected long term contract negotiations at the end of the Crisis Period. Accordingly, it is assumed that unlawful type 2 and type 3 anomalous bidding practices that took place at any time within the Crisis Period were potentially attributable to the contracts at issue, irrespective of whether they occurred inside or outside of any lesser interval of time within the Crisis Period.

ii. False Export and Parking (a/k/a "Ricochet")

95. The scheme of "false export," also known as "false import" and referred to by its Enron practitioners as "Ricochet" or "Megawatt Laundering," took advantage of the price

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[182] *Id.* P 63.

[183] *Id.* PP 3, 98, 101, 102.

[184] *Id.* P 93.

[185] *Puget Sound Energy v. All Jurisd. Sellers*, 151 FERC ¶ 61,173 (2015) (Opinion No. 537); 146 FERC ¶ 63,028 (2014) (McCartney, J.).

[186] Ex. SNA-230 at 48:23-49:11 (Pirrong Answering).

differentials that existed between the price-capped day-ahead or day-of markets and the non-capped out-of-market (OOM) prices in the real-time market. A market participant would make arrangements to export power purchased in the California day-ahead or day-of markets to an entity outside of the state and then repurchase that power from the out-of-state entity, for which the out-of-state entity would receive a fee. The "imported" power would then be sold to CDWR in the California real-time market at a price above the cap.[187] When power was parked under this practice, no power actually left the state of California.[188]

96. The "parking" aspect of this strategy had two components. The first part was a pre-scheduled (*e.g.*, day-ahead or hour-ahead) "sale" from the parking customer to the parking provider at a specific location and for certain specified operating hours (for example, a "delivery" from Shell to Glendale, arranged in the day-ahead market). The second part was a "repurchase" of the prescheduled power from the parking provider to the parking customer closer to the actual operating hour, in amounts that equaled the pre-scheduled volumes in each hour (that is, a "return" from Glendale to Shell, arranged in the real-time market). In some cases, the return leg also may have been arranged on a pre-scheduled (*e.g.*, day-ahead or hour-ahead) basis. Typically, the return was at the same location as the source of the sale.[189]

97. The day-ahead sale and the real-time repurchase gave the impression that a day-ahead transaction caused power to flow out of CAISO unrelated to a real-time flow back into CAISO in real-time, but this was not the case. The sale portion of the parking transaction would be scheduled a day early for "tomorrow," while the real-time repurchase would be scheduled that day for "today." The equal and simultaneous opposing flows out and back would effectively cancel each other out so that no power actually flowed at the intertie (*i.e.*, the fictitiously scheduled "export" and "import" point), or into or out of the parking provider's control area. Power scheduled from A (the supplier) to B (the parking provider) in the delivery leg and from B (the parking provider) to C (the ultimate purchaser) in the return leg actually just went from A (the supplier) to C (the ultimate purchaser). The parking provider, B, was merely a scheduling convenience that facilitated the deception.[190]

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[187] *Am. Elec. Power Serv. Corp.*, 103 FERC ¶ 61,345, at P 37 (2003); Ex. CAL-285 at 43:11-21 (Taylor Direct); Ex. CAL-680 at 18:15-19 (McIntosh Rebuttal); Ex. SNA-230 at 34:2-11 (Pirrong Answering).

[188] *Id.* P 38.

[189] Ex. CAL-285 at 48:5-14 (Taylor Direct).

[190] Ex. CAL-285 at 48:15-49:12 (Taylor Direct).

98. The reason for creating this fictional import was to take advantage of the fact that the CDWR would make OOM purchases that were not subject to the price cap during real-time whenever there was insufficient supply bid into its market. Resources outside CAISO could be bid into CAISO's ancillary services and real-time energy markets without the detailed information required of resources inside CAISO boundaries. Because they were supposed to be "backed up" by the control area on the other side of the interface, CAISO considered them to be reliable and did not require the same detailed information.[191] The success of this strategy required the seller to submit false information to CAISO, which violated the CAISO Tariff.[192]

99. The Commission determined in Opinion No. 536 of the *SDG&E* case that false export strategies violated the following provisions of the CAISO tariff:

> First, because False Export involved the submission of false information to CAISO, and therefore, subversion of export scheduling requirements, such transactions violated MMIP section 2.2.11.1,which provides that "[e]ach Preferred Schedule submitted by a Scheduling Coordinator…must include the name and identification number of each Eligible Customer for whom a Demand Bid or an Adjustment Bid is submitted." Sections 2.2.11.1.1-2 further specify that "For Load: the Location Code of the Take-Out Point," and "the aggregate quantity (in MWh) of Demand being served at each Take-Out Point" must also be included. The information submitted by the Respondents did not correspond to actual load. Second, we find that False Export violated CAISO MMIP section 2.1.1.5 prohibiting "unusual activity or circumstances relating to imports from or exports to other markets or exchanges." Third, we find that False Export violates the provisions within MMIP section 2.1.1.1, since the Respondents effectively withheld capacity from day-ahead markets to raise prices in the real-time markets.[193]

100. The Commission, in Opinion No. 536, affirmed Judge Baten's finding that Shell had engaged in false export transactions in the CAISO markets during the Summer Period.[194] Specifically, the Commission affirmed Judge Baten's determination that

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[191] Ex. CAL-285 at 45:1-6 (Taylor Direct).

[192] *Am. Elec. Power Serv. Corp.*, 103 FERC ¶ 61,345, at P 39 (2003); Ex. CAL-289 at 158 (CAISO Tariff, MMIP 2.1.3) (forbidding " '[g]aming,' or taking unfair advantage of the rules and procedures set forth in the PX or ISO Tariffs").

[193] *SDG&E v. Sellers*, 149 FERC ¶ 61,116, at P 120 (2014) (Opinion No. 536).

[194] *Id.* P 127.

"Shell engaged in such behavior during 110 hours of the Summer Period, and produced 1,657 MWh of falsely exported energy." [195]

101. In the *Puget Sound Energy* proceeding before Judge McCartney, 47 more instances of false export transactions on Shell's part in its sales to CDWR were shown to have taken place during the Negotiation Period from January 17 through July 6, 2001.[196] Judge McCartney did not rule conclusively that those instances constituted false exports.[197] Consequently, the Commission reversed and remanded her ID for further findings of fact.[198] On remand to Judge Baten, these false exports were confirmed.[199]

102. In response to Complainants' false export allegations, Pirrong points out that Shell's sales of energy to CDWR that it had simultaneously purchased from another seller at the same location, known as "back-to-back" or "B2B" transactions, were largely independent from its exports from the CAISO.[200] Each B2B-linked purchase and resale was at the same location and in the same hour, and was recorded with consecutive deal numbers in Shell's records. [201] Shell submitted into the record a listing of all of its B2B transactions with CDWR from January 17 through June 20, 2001.[202] According to Pirrong, Complainants do not demonstrate a dependent link between those transactions deemed to be "false exports" and Shell's B2B sales to CDWR.[203]

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[195] *Id*.

[196] Ex. CAL-319 at 85:16-86:12 (Taylor Direct).

[197] *Puget Sound Energy v. All Jurisd. Sellers*, 146 FERC ¶ 63,028, at P 1404 (2014) (Initial Decision).

[198] *Id*. P 1404, *rev'd in relevant part*, 151 FERC ¶ 61,173, at PP 97 & 100 (2015) (Opinion No. 537), *reh'g denied*, 153 FERC ¶ 61,386 (2015).

[199] *Puget Sound Energy v. All Jurisd. Sellers*, 154 FERC ¶ 63,004, at PP 20-33 (2016) (Revised Partial Initial Decision).

[200] Ex. SNA-230 at 36:3-4 (Pirrong Answering); Ex. SNA-200 at 12:18-22 (Bowman Answering).

[201] Ex. SNA-230 at 36:1-3 (Pirrong Answering); Ex. SNA-202.

[202] Ex. SNA-200 at 12:22 (Bowman Answering); Ex. SNA-202.

[203] Ex. SNA-230 at 35:20-36:7 (Pirrong Answering).

103. Complainants' evidence of Shell traders' e-mails, however, do establish a link between Shell's false exports and its B2B transactions. Shell trader Chris Giulini's January 26, 2001 transaction is readily found in Shell's list of B2B transactions as CDWR sale number 352, occurring on January 26, 2001 in HE 24, having deal number 40371, at the COB-MLNNW1 sale point, for 25 MW at a price of $625 per MWh. The B2B transaction behind it is a sale to Shell from PGE having deal number 40370, also at the COB-MLNNW1 sale point, for 25 MW at a price of $400 per MWh.[204] This is the transaction that Giulini described in his e-mail to Carey Morris, his boss, as "sending mw up the NOB line on Glen transmission and selling them to Portland for a $100 profit for Glendale … then having PGE launder the mw through their system and redeliver them to us at Malin where I am selling them at a $225 profit for [Shell] to CDWR."[205]

104. Pirrong also argues that Complainants wrongly deem any export by Shell of power generated in California that occurred in the same hour as a sale of power by Shell into California to be a "false export," even though it did not involve the filing of an export schedule with the CAISO, as is required under the Commission's criteria for a transaction to qualify as a false export.[206] The Commission, however, has already dismissed this argument in Opinion No. 536:

> We reject the assertion by the Indicated Respondents that the California Parties' analysis merely identifies that, in a given delivery hour, an import and export both occurred. As discussed above, the California Parties analysis demonstrates how parking arrangements were used to circumvent the CAISO tariff by falsifying schedules to allow Respondent suppliers to gain access to the real-time markets because the CAISO tariff prohibited marketers, who normally just purchased and resold energy, from participating in such markets. … The documents and dealings of parking providers show that they did nothing more than allow their customers to make use of their name for purposes of day-ahead scheduling and real-time bidding.[207]

105. Pirrong further contends that Complainants improperly brand as "false exports" volumes out of and into the CAISO without requiring them to match, and fail to require

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[204] Ex. SNA-202 at 11 (line 352).

[205] Ex. CAL-363.

[206] Ex. SNA-230 at 37:3-7 (Pirrong Answering).

[207] *SDG&E v. Sellers*, 149 FERC ¶ 61,116, at P 123 (2014) (Opinion No. 536).

the export and import to be at the same location.[208] The Commission rejected this contention as well in Opinion No. 536:

> We agree with the California Parties that demonstration of an exact match between forward transactions and offsetting real-time transactions is not necessary because the quantities that were taken in a real-time auction were not known until the real-time dispatch. Therefore, it was possible for CAISO to accept only a portion of a false export bid consistent with the single-price auction market structure, which would not always result in one-to-one matching of the forward and real-time transaction. [209]

106. Pirrong calls into question Complainants' claim that Shell "laundered" energy – that is, that Shell allegedly exported energy out of California and sold it to entities in the Pacific Northwest, then re-purchased the energy and sold it to CDWR, falsely representing the energy to be sourced from the Pacific Northwest.[210] According to Pirrong, Complainants' expert witness, Taylor, at his deposition could point to no tariff or other document prohibiting this transaction.[211] In addition, Pirrong points out that Taylor points to no transaction data submitted by Shell to CDWR that included any false information about the origination of the energy sold to CDWR at COB.[212]

107. Pirrong's focus on the lack of explicitly prohibitive language in the tariffs misconstrues the nature of false export. Although there was no express prohibition of the practice in the tariffs, the purpose behind the practice was to sell energy to CDWR at the OOM price, a price that was higher than the in-market price that the energy was entitled to fetch. Again, as the Commission explained in Opinion No. 536:

> Respondents relied on parking providers outside the CAISO footprint to improperly gain access to real-time markets. Respondent suppliers were able to file an export schedule by framing the export as an ostensible sale to the parking provider outside the CAISO control area, who would resell the

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[208] Ex. SNA-230 at 37:7-10 (Pirrong Answering); Ex. SNA-234 at 19:10-15.

[209] *SDG&E v. Sellers*, 149 FERC ¶ 61,116, at P 131 (2014) (Opinion No. 536).

[210] Ex. SNA-230 at 37:14-38:13 (Pirrong Answering); Ex. CAL-319 at 10:9-12 (Taylor Direct).

[211] Ex. SNA-230 at 38:5-10 (Pirrong Answering); Ex. SNA-234 at 17:9-18:17, 32:8-34:20.

[212] Ex. SNA-230 at 38:11-13 (Pirrong Answering).

> energy back to the supplier in real time for a nominal fee. The repurchased energy was subsequently bid into the CAISO real-time market as Supplemental Energy or into the ancillary service markets as Replacement Reserves by using the parking provider's interchange ID in order to meet the tariff's requirements. Thus, if the delivery leg associated with the sale were scheduled from CAISO's control area and the return leg associated with the repurchase were scheduled back into the CAISO control area, they effectively canceled each other out so that no power actually flowed at the intertie. In simple terms, we find that parking providers were utilized by suppliers as a scheduling convenience to facilitate the deception that energy was sourced outside the CAISO footprint, when all along, the energy originated from the CalPX or in bilateral markets within CAISO's boundaries. Power scheduled from A (the supplier) to B (the parking provider) in the delivery leg and from B to C (the ultimate purchaser) in the return leg actually just went from A to C. The two elements were falsely documented as if they were unrelated, when, in fact, they were part of the same, self-canceling transaction, which is ultimately a violation of the CAISO MMIP ….[213]

108. Given the thousands of megawatt-hours of false export that have already been determined by the Commission to have taken place during the Summer Period, it is evident that Shell was a player of the false export stratagem during the Crisis Period.

109. In the *SDG&E* case, Judge Baten found, and in Opinion No. 536 the Commission affirmed, that Shell had engaged in false export practices in the CalPX and CAISO markets during the relevant period in that case that had an impact on the market-clearing price.[214]

iii. False Load (a/k/a "Fat Boy") and Load Shift

110. The practice known as "false load," or, as Enron called it, "Fat Boy," involved a market participant with more generation than load falsely overstating to the CAISO its scheduled load that corresponded with an amount of generation in its schedule. This practice permitted the market participant to be dispatched by the CAISO during real-time to its full capacity and to receive the real-time market clearing price, even though it did not have scheduled load equal to its generation capacity when it bid into the day-ahead

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[213] *SDG&E v. Sellers*, 149 FERC ¶ 61,116, at P 122 (2014) (Opinion No. 536).

[214] *Id.* PP 132-133.

market, as called for by the "balanced schedule" requirement.[215] False load ensured the supplier that its generation would not go unsold in the real-time market.[216]

111. "Load shift," a related stratagem, involved a market participant underscheduling load in one CAISO zone and overscheduling load in another, thereby increasing congestion in the direction of the overscheduled zone. Congestion "relief" occurred when the market participant later adjusted the two schedules to reflect actual expected loads. This adjustment created a counter-flow toward the underscheduled zone, earning the market participant a congestion relief payment from the CAISO.[217]

112. Pirrong points out that Shell was found to have engaged in false load and load shift only during the early Summer Period, not during the later times of the Crisis Period.[218] He also states that there is no evidence that these practices had any effect on spot market prices during those later periods.[219] These practices, if anything, were legitimate forms of arbitraging between markets, Pirrong contends. There was a divergence between real-time and day-ahead prices, likely caused by the IOUs underscheduling of their loads, and so-called false load scheduling by Shell and other sellers actually arbitraged between those two markets and tended to move prices toward their competitive levels, he argues.[220]

113. The Commission rejected this rationalization in Opinion No. 536 of the *SDG&E* case, in which it said:

> [E]ven if the Respondents' practices constituted an attempt at arbitrage, there are policy considerations other than facilitation of the convergence of

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[215] Ex. CAL-285 at 51:17-52:3 (Taylor Direct); Ex. CAL-289 at 16 (CAISO Tariff, MMIP 2.2.7.2).

[216] *Am. Elec. Power Serv. Corp.*, 103 FERC ¶ 61,345, at P 59 (2003); Ex. CAL-285 at 50:13-51:16 (Taylor Direct); Ex. SNA-230 at 46: 11-15 (Pirrong Answering).

[217] *Am. Elec. Power Serv. Corp.*, 103 FERC ¶ 61,345, at P 45 (2003); Ex. CAL-285 at 57:14-59:6 (Taylor Direct); Ex. SNA-230 at 46:11-48:5 (Pirrong Answering).

[218] Ex. SNA-230 at 46:21-23 (Pirrong Answering).

[219] *Id*. at 47:1-4.

[220] *Id*. at 47:5-14.

> prices in the day-ahead and real-time markets, the ostensible policy benefit of profit-seeking arbitrage. One of the purposes of the CAISO market structure at the time was precisely to avoid the crisis situation of 2000-2001 in California, where energy was being procured at the last second at extremely high prices. … [D]uring the Summer Period, as real-time prices became extremely high, the Respondents contrived ways, such as False Load Scheduling, to remove their energy from the day-ahead CalPX market, where the demand was more elastic and subject to differences in offer price, and moved the energy into the real-time market, where the demand was inelastic and investor-owned utilities had no ability to avoid a high real-time price. … Moving a megawatt between the two markets is not a transaction to legitimately serve higher demand, but to exploit the essentially inelastic demand for electricity that is common to all real-time energy markets, and that all market structures seek to mitigate by rules and regulations. In the CalPX market, the risk of not being able to sell energy is supposed to discipline market participants to bid their marginal cost. By contrast the real-time market was not designed to handle large amounts of power sales and was more susceptible to manipulation. Circumventing CAISO tariff provisions to eliminate the incentive to bid at marginal cost does not serve this market structure, but instead helps to destroy it. [221]

114. Pirrong counters, nevertheless, that false load had a salutary effect. To the extent that the CAISO found that it had more energy available in real time than it had anticipated, it could defer dispatching expensive additional generation. Every increment of generation that had been bid in was dispatched from least expensive to most expensive, he points out. The excess energy used to cover a false load had not been bid into the market, and therefore was compensated as a "price taker" – that is, that it did not increase the market price. By reason of the availability of this energy, Pirrong asserts, the CAISO was able to avoid dispatching generators that had bid in prices above the then-current market price. In short, to the extent that incremental energy was available in real time, it decreased the CAISO market clearing price. [222]

115. This rationalization, too, was rejected by the Commission in Opinion No. 536, as follows:

> [T]he Commission has been and remains unconvinced by arguments that there was a price reducing effect of False Load Scheduling on the real-time

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[221] *SDG&E v. Sellers*, 149 FERC ¶ 61,116, at P 172 (2014) (Opinion No. 536) (footnotes omitted).

[222] Ex. SNA-230 at 47:15-24 (Pirrong Answering).

> market, as such arguments seem to rely on the fact that False Load Scheduling increased supply into the real-time market. These arguments again rely on the fallacy that the CalPX market and the real-time market are equivalent separate markets, where supply taken from one market would increase the supply in the other market without affecting demand. If the vast majority of the bids by the Respondents had been made in the day-ahead market, the legal alternative to False Load Scheduling for selling power into CAISO, … the demand that needed to be met in the real-time market would have been far less, as supply would have been secured at lower prices in the CalPX market. [223]

116. In the *SDG&E* case, Judge Baten found, and in Opinion No. 536 the Commission affirmed, that Shell had engaged in false load and load shift in the CalPX and CAISO markets during the relevant period in that case that had an impact on the market-clearing price.[224]

iv. Noncompliant Quarterly Reporting

117. In addition to unlawful activities having price effects in the spot market, Complainants also accuse Shell of failing to file quarterly reports that were compliant with the Commission's reporting requirements in effect during the Crisis Period.[225] According to Complainants, these reports, like many others filed during this period, did not provide the information required by the Commission to fulfill its oversight function. The reports as filed, Complainants assert, provide only aggregate sales volumes on a quarterly or sometimes monthly basis along with a range of prices. There is no hourly transaction detail, nor is there any information on the timing or location of the transactions. [226]

118. Pirrong points out that this issue is being addressed in a different Commission proceeding, Docket No. EL02-71.[227] Pirrong also points out that Complainants have presented no evidence that the filing of quarterly reports had any effect on spot market

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[223] *SDG&E v. Sellers*, 149 FERC ¶ 61,116, at P 178 (2014) (Opinion No. 536) (footnotes omitted).

[224] *Id.* PP 138, 176.

[225] Ex. CAL-319 at 114:14-115:4 (Taylor Direct); Ex. CAL-598.

[226] Ex. CAL-319 at 114:18-115:1 (Taylor Direct).

[227] Ex. SNA-230 at 49:18-20 (Pirrong Answering).

prices during the Crisis Period. [228] According to Pirrong, they would not have any such effect. [229]

119. The Commission has rejected the quarterly reporting issue in *State of Cal. ex rel. Lockyer v. B.C. Power Exch. Corp.*, an Order on Clarification and Rehearing, in Docket No. EL02-71.[230] In that Order, the Commission determined that "quarterly reporting violations, by themselves, are insufficient to avoid application of the *Mobile-Sierra* presumption."[231] The Commission further explained that "evidence of quarterly reporting violations would not demonstrate the necessary connection between an unlawful act and an unjust and unreasonable contract rate."[232] Even if there were "evidence of an overt act of manipulation that directly affected the contract rate," the Commission went on to say, "evidence of a reporting violation would be superfluous."[233] This Commission conclusion is dispositive for the same issue in this case. Accordingly, the quarterly reporting issue will not be further considered here.

v. False Natural Gas Reporting

120. Complainants further accuse Shell natural gas energy traders at its "West Desk" of falsifying reports of natural gas prices that they provided to gas price index publishers during the Negotiation Period of the CDWR long term contract.[234] These actions, according to Complainants' expert witness, Berry, "affected or tended to affect the price of natural gas in interstate commerce and could have affected or tended to affect the price of natural gas futures contracts traded on the New York Mercantile Exchange."[235]

121. As Berry further explains, gas-fired electricity generation is often the power source that is dispatched "on the margin" of daily supply, meaning that it is the most expensive power source. It therefore influences the market price for electricity. This was

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[228] *Id*. at 49:21-24.

[229] *Id*. at 50:1-6.

[230] 154 FERC ¶ 61,154 (2016).

[231] *Id*. at P 16.

[232] *Id*. (brackets omitted).

[233] *Id*.

[234] Ex. CAL-268 at 3:5-4:4 (Berry Direct).

[235] *Id*. at 4:1-4 (internal punctuation marks omitted).

the case for most hours during the Crisis, Berry explains. Consequently, Berry contends, Shell's manipulation of natural gas forward price reports to index publishers altered natural gas prices and thereby directly affected electricity prices.[236]

122. Complainants' evidence of Shell traders' falsification of gas data is derived from investigations that were conducted by the U.S. Commodity Futures Trading Commission (CFTC), and the settlement orders and consent decree that the CFTC entered into with Shell and certain of its West Desk traders in 2004 and 2007.[237] Shell signed a settlement agreement with CFTC on July 28, 2004, in which Shell agreed to pay a civil monetary penalty of $30 million without admitting or denying the findings of fact that CFTC made.[238] Five of six accused Shell traders against whom CFTC filed a suit for civil penalties in federal district court entered into a consent order with CFTC to cease such activity and to pay collectively a penalty of $1 million.[239] The sixth trader went to trial in the suit, but was not found liable.[240]

123. The CFTC investigation uncovered a pattern of activity at Shell's West Desk from October 2000 through June 2002 whereby its traders submitted monthly price and volume data to the gas industry publications that compiled and disseminated price index data. The data, however, was not based on Shell's actual trades. Instead, traders reported to their supervisor their "marks," or estimates of what the price was expected to be in the following month at each reported hub. The supervisor would then e-mail back to them a three-column chart that listed, for each hub, the trader's mark in the first column and an indication in each of the next two columns as to whether a higher ("Up") or lower ("Down") index price would be "Good" or "Bad" for the West Desk's book.[241] Traders then reported to the publications prices for each hub that, in most instances, were higher

[236] Ex. CAL-268 at 13:10-17 (Berry Direct).

[237] *Id*. at 6:11-13 and 10:3-9.

[238] Ex. CAL-270 at 1, 5.

[239] Ex. CAL-274.

[240] Ex. CAL-268 at 10:8-9 (Berry Direct); *CFTC v. Dizona*, 594 F.3d 408 (5th Cir. 2010).

[241] Ex. CAL-273 at 4-23 (Kaminski Declaration); *CFTC v. Dizona*, 594 F.3d 408, 412 (5th Cir. 2010).

or lower than the mark, as instructed by their supervisor.[242] Those reports were evaluated by the publications and formed the basis of published natural gas price indices.

124. According to Heeb, Shell traders indeed misreported their monthly transaction results to the publisher of *Natural Gas Intelligence* (NGI).[243] However, Heeb asserts, when he replaced Shell's incorrect reports of transactions with transactions that Shell actually made and that he believes Shell should have reported, the weighted average price of all the transactions on which NGI based its indices changed very little.[244] In fact, Heeb contends, during the period from January 2000 to May 2001, Shell's misreports lowered rather than raised the price indices by about $0.001 per MMBtu from what they would have been if Shell's reporting had been accurate.[245]

125. Heeb's finding of an insignificant variation in the gas price indices resulting from replacing Shell's false reports with its real trades starts with a benchmark – the published NGI indices – that was false overall, thanks to rampant misreporting by other traders in addition to Shell, as the FERC Staff found to be the case.[246] As Berry points out on rebuttal:

> Dr. Heeb completely disregards the environment in which Shell's false reporting takes place – rampant misreporting by many entities across the West, trader admissions of and convictions for misreporting, and index prices that did not reflect the actual market. Dr. Heeb makes no effort to correct for the fact that the index prices were manipulated by dozens of entities in the market, and instead uses the manipulated prices obtained by NGI as the benchmark against which to analyze the effects of Shell's false reporting. Because he compares the impacts of Shell's actions within a fixed manipulated price framework, Dr. Heeb's results reveal nothing about how Shell's unlawful actions would have affected the "real" natural gas

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[242] Ex. CAL-273 at 23-24 (Kaminski Declaration); *CFTC v. Dizona*, 594 F.3d 408, 412 (5th Cir. 2010).

[243] Ex. SNA-265 at 4:15-18 (Heeb Answering).

[244] *Id*. at 4:18-22.

[245] *Id*. at 5:6-12.

[246] Ex. CAL-291 at 114-168 (FERC Staff, *Final Report on Price Manipulation in Western Markets*, Docket No. PA02-2-000 (March 2003)).

price (price with no false reporting or market manipulation) up to and during the Negotiation Period.[247]

b. Causal Connection of Unlawful Activities to Contract

126. The Order on Remand requires Complainants to show in this proceeding, in addition to the existence of Shell's unlawful activities, that "such activity had a direct effect on the negotiations of the contract at issue (*i.e.*, a causal connection between an unlawful activity and the terms of the contracts)" in order to satisfy the "avoidance" prong of the *Mobile-Sierra-Morgan Stanley* Rule.[248]

127. Complainants raise several grounds for a causal connection between Shell's unlawful activities and contract negotiations: (i) the price effects of Shell's unlawful spot market activities;[249] (ii) Shell's exercise of market power in the Pacific Northwest market that had the effect of elevating spot market prices;[250] (iii) unlawful activities in the natural gas markets that affected CDWR's evaluation of the Shell contract terms and conditions during negotiations;[251] and (iv) bad faith, unconscionability, duress, and fraud.[252]

i. Price Effects

128. The Commission established in the *SDG&E* case that several of Shell's unlawful activities elevated prices in the CalPX and CAISO spot markets.[253] Complainants

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[247] Ex. CAL-706 at 6:8-20 (Berry Rebuttal).

[248] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 23 (2014) (Order on Remand).

[249] Complainants Post-hearing Initial Br. at 37-41; Complainants Post-hearing Reply Br. at 21-24.

[250] Complainants Post-hearing Initial Br. at 28.

[251] Complainants Post-hearing Initial Br. at 35-37; Complainants Post-hearing Reply Br. at 20-21.

[252] Complainants Post-hearing Initial Br. at 28-33, 44-45; Complainants Post-hearing Reply Br. at 16-20.

[253] *SDG&E v. Sellers*, 149 FERC ¶ 61,116, at PP 57, 62, 97, 102, 120, 127, 174, and 176 (2014) (Opinion No. 536).

presented an analysis in that case prepared by their expert witness, Dr. Peter Fox-Penner, of the price effects of several Shell violations on an hour-by-hour basis for every day of the Summer Period. Judge Baten found in his ID, and the Commission affirmed, that each of Shell's unlawful acts of anomalous bidding of types 2 and 3, false export, and false load scheduling raised market-clearing prices in the spot markets.[254] No evidence was presented by Complainants in *SDG&E* of price effects for any of the other unlawful activities named earlier that Shell is alleged to have committed.

129. In addition to the foregoing violations found in *SDG&E*, a discovery sanction for Shell's failure to produce requested audiotapes has been imposed in this case in the form of an adverse factual inference. It has been deemed to be a fact that on every day that an audiotape was missing on which Shell made sales to CDWR (*i.e.*, May 18-24 and May 30-31, 2001), Shell engaged in unspecified unlawful activity, and each such unlawful activity had a price effect in spot market.[255]

130. The foregoing findings constitute this Initial Decision's determination that Shell committed unlawful activities in the spot market that possessed the requisite price effects. With that, Complainants allege that these unlawful spot market activities affected forward prices for electric power, which in turn upset negotiations between Shell and CDWR on long term contract rates.[256] To begin with, a chronology of the contract negotiations is set forth.

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[254] *SDG&E v. Sellers*, 149 FERC ¶ 63,011, at PP 14, 34, 35, 37, 58, 62, and 63 (2013) (Baten, J.), *aff'd*, 149 FERC ¶ 61,116, at PP 57, 62, 97, 102, 120, 127, 174, 176 (2014) (Opinion No. 536).

[255] Order Memorializing November 10, 2015 Bench Ruling on Motion to Compel Production of Audio Recordings and Request for Sanctions, at P 10 (November 13, 2015).

[256] Ex. CAL-319 at 8:8-12 (Taylor Direct) ("Manipulation affected spot prices, spot prices in turn affected CDWR's expectations concerning scarcity and market expectations generally about future spot prices and, hence, forward contract prices, and finally forward contract prices affected the terms of the Shell Contract."); Tr. 1428:17-1429:2 (Taylor Cross) ("The manipulation in the market affected spot prices and then forward prices, and the forward prices were the basis upon which these contracts were negotiated."); Complainants Post-hearing Initial Br. at 54-63; Complainants Post-hearing Reply Br. at 5-10.

(a) Formation of the Shell-CDWR Contract

131. The contract between Shell and CDWR was negotiated between the parties from February 20, 2001 through the day of its signing.[257] It was signed on May 25, 2001, although the writing bears a date of May 24, 2001.[258]

132. The contract term ran from May 25, 2001 through June 30, 2012.[259] The base products consisted of Shell's delivery to CDWR of peak 6x16 energy (*i.e.*, at peak hours, on Mondays-Saturdays between 7:00 a.m. and 10:00 p.m. [260]), ranging from 50-400 MW; and 7x24 energy ranging from 50-100 MW. The contract also included options for Shell to increase the peak hour volumes by 175 MW in July 2003, and by another 175 MW commencing in July 2004 through the remainder of the contract term.[261]

133. The contract's pricing was tiered as follows: $169/MWh through May 31, 2001; $249/MWh from June 1, 2001 through October 31, 2001; $115/MWh from November 1, 2001 through June 30, 2002; $169/MWh from July 1, 2002 through December 31, 2003; $72.87/MWh from January 1, 2004 through December 31, 2005; and $25.16/MWh plus fuel costs from January 1, 2006 through June 30, 2012. [262] A "tolling" structure was included in this latter price tier, in which CDWR had the right to supply its own natural gas fuel at its own cost. [263] CDWR was also obligated to pay capacity payments from

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[257] Ex. CAL-200 at 15:4-8 (Nichols Direct).

[258] Ex. CAL-200 at 20:17-19 (Nichols Direct); Ex. CAL-31 (CDWR-Shell Contract). Section 10.17 of the CDWR-Shell contract states that "[n]either Party will exercise any of its respective rights under Section 205 or Section 206 of the Federal Power Act to challenge or seek to modify any of the rates or other terms and conditions of this agreement." Ex. CAL-031. No party has raised this provision as grounds for dismissal, given that CDWR itself never filed a complaint under section 206. The complaints that initiated this proceeding were filed by CPUC and EOB.

[259] Ex. CAL-636.

[260] Ex. CAL-200 at 13:15-16

[261] *Id*. at 21:2-7

[262] *Id*. at 21:7-12.

[263] *Id*. at 19:15-16.

July 1, 2002 through December 31, 2005 for each Shell generating facility (the Wildflower Peaking Units) that was online during that time period.[264]

134. People who participated in the negotiation of the CDWR-Shell contract in 2002 have testified in this proceeding. Among them is Ronald O. Nichols, who in 2002 was a Senior Managing Director at Navigant Consulting, Inc. (NCI), an entity retained by CDWR to assist it in establishing and running the State of California's power purchase program.[265] Also testifying was Raymond Hart, who in 2001 served as Deputy Director of the California Energy Resources Scheduling division of CDWR (CERS), the division directly in charge of negotiating the Shell contract.[266] The CDWR employee who had the most direct daily involvement in the Shell contract negotiations – Tara Nolan Reed (née Tara Nolan) – did not testify in person.[267] However, excerpts from the written transcript of Nolan's October 10, 2002 videotaped deposition in the early part of this case was admitted into evidence by Judge McCartney and is part of the record here.[268]

135. Edward Brown, who testified on behalf of Shell, in 2001-2002 was Vice President of Structured Transactions for Shell's predecessor, Coral. He had primary responsibility for Shell's side of the negotiations with CDWR.[269] Also testifying was Beth A. Bowman, who in 2000-2001 was General Manager of the Shell's San Diego power trading office and was responsible for Shell's West Region short-term and long-term electric power trading.[270]

136. Others who were not directly connected to the negotiation of the Shell-CDWR contract, but who submitted relevant testimony, include Lynn A. Lednicky, who at the time of the negotiation worked on a separate, unrelated long term contract with CDWR

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[264] *Id*. at 21:12-15.

[265] Ex. CAL-51 at 2:20-4:2 (Nichols Direct); Ex. CAL-156 (Nichols Rebuttal); CAL-200 at 2:8-11 (Nichols Direct); Ex. CAL-670 (Nichols Rebuttal).

[266] Ex. CAL-12 at 2:1-7 (Hart Direct); Ex. CAL-210 at 2:14-3:7 (Hart Direct).

[267] Tr. 288:11-13 (Nichols); Tr. 1587:12-13 (counsel).

[268] Ex. COR-67 (Nolan Dep.); *see also* Ex. SNA-222 (Nolan Dep.); Tr. 2642:21-23 (McKeon Closing Arg.).

[269] Ex. SNA-219 at 5:15-19 (Brown Answering).

[270] Ex. SNA-200 at 4:18-22, 7:1-13 (Bowman Answering); Tr. 1499:3-6 (Bowman Cross).

on behalf of Dynegy Power Marketing, Inc.[271] Also testifying was Susan T. Lee, who at the time of the negotiation worked as CDWR's Manager of Trading and Scheduling, and was in charge of its spot market transactions.[272] Another was Jim McIntosh, who was CAISO's Director of Scheduling during the Crisis.[273]

137. As Nichols and Hart explain, CDWR was tasked at the height of the Western Energy Crisis, by a Proclamation of a State of Emergency issued by Governor Gray Davis on January 17, 2001,[274] to "enter into contracts and arrangements for the purchase and sale of electric power … as expeditiously as possible" in order to meet the "Net Short" energy requirements of the then failing California IOUs, PG&E, SCE, and SDG&E.[275] The "Net Short" energy requirements of the IOUs consisted of the difference between (1) the total energy requirements of the IOUs' retail and end use customers, and (2) the sum of the energy generated by IOU-owned electric generating plants, qualifying facilities (QFs) under contract with the IOUs, and existing bilateral contracts between the IOUs and other suppliers.[276] The Proclamation was followed by enabling and funding legislation from the California Legislature on February 1, 2001.[277]

138. In accordance with these goals, CDWR issued two requests for bids (RFBs), one dated January 23, 2001 and one dated February 2, 2001.[278] According to Nichols, CDWR sought deals for terms of one to three years, but left open the possibility for longer terms in order to encourage sellers to offer CDWR's average price target of $70/MWh.[279] Shell did not respond to the first RFB, but did respond to the second.[280]

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[271] Ex. SNA-228 at 3:8-14 (Lednicky Answering).

[272] Ex. CAL-222 at 3:5-18 (Lee Answering).

[273] Ex. CAL-680 at 1:16-18 (McIntosh Rebuttal).

[274] Ex. CAL-12 at 4:4-16 (Hart Direct); Ex. CAL-13.

[275] Ex. CAL-200 at 4:3-7 (Nichols Direct); Ex. CAL-12 at 4:4-6:1 (Hart Direct); Ex. CAL-13.

[276] Ex. CAL-200 at 4:15-20 (Nichols Direct).

[277] Ex. CAL-210 at 7:11-18 (Hart Direct).

[278] Ex. CAL-200 at 8:14-15 (Nichols Direct); Ex. CAL-51 at 31:1-13 (Nichols Direct); Ex. CAL-66; Ex. CAL-67.

[279] Ex. CAL-51 at 31:1-13 (Nichols Direct).

139. Prior to that time, Shell participated in a Summer Reliability Agreement (SRA) with CAISO to provide reliability generation during the summer months.[281] In return for CAISO's payment of incentive fixed prices in the form of capacity payments to expedite the construction of new generation resources, Shell agreed to build five 43-MW gas turbine generators through Shell's affiliate, Wildflower Energy, L.L.C. (Wildflower).[282] Shell also built a peaking unit in La Rosita, Mexico, for use in the California market.[283] Under the SRA, CAISO could cause the plants to operate for a limited number of hours, but it was Shell's responsibility to arrange for the sale of the plants' power within the CAISO control area.[284] So Shell was building the Wildflower and La Rosita plants without a third-party power purchase agreement – that is, with no assured buyer for this power.[285]

140. In response to CDWR's second RFB, Shell offered to sell CDWR 100 MW of 7x24 power at a fixed price of $71.50/MWh for five years commencing January 1, 2002.[286] This offer was lower than spot prices at the time and lower than the prevailing forward price for 2002 delivery. On the date of the second RFB, forward prices at SP-15 stood at approximately $130/MWh for 2002 delivery and $75/MWh for 2003 delivery. [287] Spot electric prices at SP-15 stood at approximately $200/MWh. [288]

141. CDWR did not respond back, and when Shell contacted CDWR about it, CDWR informed Shell that it was not interested in the bid.[289] CDWR was more interested at that

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[280] Ex. SNA-219 at 7:13-8:4 (Brown Answering).

[281] Ex. SNA-219 at 5:20-6:1 (Brown Answering); Ex. S-101 (SRA Agreement).

[282] Ex. SNA-219 at 6:3-23 (Brown Answering); Ex. S-100R at 11:11 (Poffenberger Answering).

[283] Ex. SNA-219 at 9:14-19 (Brown Answering).

[284] *Id*. at 6:8-11.

[285] *Id*. at 6:15-17.

[286] Ex. CAL-203; SNA-219 at 8:5-8 (Brown Answering); Ex. COR-1 at 12:7-14 (Brown Answering).

[287] Ex. CAL-604 at 25, fig.5 (Goldberg Direct).

[288] *Id*. at 25, fig.5.

[289] Ex. SNA-219 at 8:8-9 (Brown Answering); Ex. COR-1 at 12:12-14 (Brown *(continued ...)*

time in procuring 6x16 energy (that is, delivered at peak hours, on Mondays-Saturdays between 7:00 a.m. and 10:00 p.m.) that began deliveries in 2001, which Shell did not offer in its bid.[290]

142. By early February 2001, Shell's Wildflower generating facility was undergoing siting, predevelopment and permitting to build the gas turbine generators called for in the SRAs. However, by that time, SCE and PGE's credit ratings had fallen to junk or near junk status. Shell worried that it might not be able to find creditworthy purchasers of power from Wildflower.[291] In addition, the CalPX had suspended all trading and would soon go bankrupt, and the CAISO looked like it would follow suit. Worse still, Shell had not been paid several millions of dollars for energy that it had already delivered to the CAISO and CalPX.[292]

143. CDWR contacted Shell again on February 20, 2001 with purchasing interest.[293] CDWR informed Shell that, due to the credit issues, CDWR was taking over CAISO's SRAs, including the agreements concerning the Wildflower units.[294] CDWR wanted to turn the SRAs into capacity and energy sales contracts and was open to terms longer than three years in duration, including both capacity and energy payments and either a tolling or fixed price structure for the energy. CDWR asked Shell to meet with CDWR representatives to discuss these concepts.[295]

144. Shell was concerned about the impact of CAISO's financial health on its Wildflower and La Rosita construction plans, so its representatives met with CDWR officials on February 23, 2001.[296] CDWR was concerned about the dire financial

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Answering).

[290] Ex. CAL-200 at 13:16-17 (Nichols Direct); Tr. 245:7-246:4 (Nichols Cross).

[291] Ex. COR-1 at 13:3-8 (Brown Answering); Ex. SNA-219 at 8:10-18 (Brown Answering); Tr. 1624:13-22 (Brown).

[292] Ex. SNA-219 at 8:10-23 (Brown Answering).

[293] Ex. COR-1 at 13:15-16 (Brown Answering); Ex. COR-10.

[294] Ex. COR-1 at 13:17-21 (Brown Answering); Ex. COR-10.

[295] Ex. COR-1 at 13:21-14:4 (Brown Answering); Ex. COR-10.

[296] Ex. SNA-219 at 9:11-21 (Brown Answering); Ex. CAL-200 at 15:9-14 (Nichols Direct).

circumstances of the IOUs, the CalPX, and the CAISO, and wanted power sellers having SRAs to sell it as much power as they could manage during the critical summer 2001 period.[297]

145. At the meeting, CDWR informed Shell that the State had a critical need for power deliveries during March and April 2001, before Shell's Wildflower units were scheduled to come online in July 2001.[298] In response, Shell made on February 26, 2001 a 10-year offer to provide capacity and energy, beginning July 1, 2001, of principally 6x16 and 7x24 power for 210 MW for the first two years, with increasing base quantities and additional volumes over time.[299]

146. Shell offered CDWR a price for energy of $93.95 per MWh for delivery during the period July 1, 2001 through June 30, 2004, and $58.75/MWh for delivery during the period July 1, 2004 through June 30, 2011. [300] Shell requested capacity payments for four years commencing on July 1, 2002 at a price of $352,000 per month for each of the five Wildflower units, for a total of $1,760,000 per month. [301]

147. Shell's energy offer was well below prevailing spot prices and below 2002 forward prices. As of Shell's February 26, 2001 offer date, forward market electricity prices at SP-15 stood at approximately $120/MWh for 2002 delivery and $60/MWh for 2003 delivery. [302] Spot electric prices at SP-15 on the offer date stood at approximately $200/MWh. [303]

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[297] Ex. CAL-200 at 14:12-15:1 (Nichols Direct).

[298] Ex. CAL-200 at 15:16-16:2 (Nichols Direct); Ex. SNA-219 at 10:5-9 (Brown Answering).

[299] Ex. CAL-200 at 16:3-6 (Nichols Direct); Ex. SNA-219 at 10:21-11:3 (Brown Answering); Ex. COR-11.

[300] Ex. CAL-200 at 16:6-8 (Nichols Direct); Ex. SNA-219 at 11:3 (Brown Answering); Ex. COR-11.

[301] Ex. CAL-200 at 16:8-9 (Nichols Direct); Ex. SNA-219 at 11:3 (Brown Answering); Ex. COR-11.

[302] Ex. CAL-604 at 25, fig.5 (Goldberg Direct).

[303] *Id*.

148. CDWR did not accept Shell's February 26, 2001 offer "as is." CDWR and NCI evaluated Shell's term sheet using its spot market pricing model.[304] On March 12, 2001, Tara Nolan of NCI reported to CDWR the results of the analysis: "Absent another benchmark not sure where to go with the analysis but I think overall the deal looks acceptable."[305]

149. Intense negotiations ensued. CDWR asked Shell to begin deliveries sooner than July 1, 2001, before the Wildflower units were to come online.[306] Shell would have to buy these quantities from the market.[307] Higher volumes were obtained from Shell for August through September 2001, and lower volumes in later years.[308] Other changes in CDWR's favor were also made, including changes to the product mix (*i.e.*, more 6x16 power, less 7x16 power), a change to the delivery location (*i.e.*, from SP-15, where the Wildflower units were located, to NP-15, with Shell assuming the delivery risk to that location), a tolling structure for later deliveries, and other modifications.[309]

150. In return, Shell demanded a price increase. Its energy price for 2001 through 2003 increased from $93.95/MWh to $169/MWh, and the price for 2004 through 2005 increased from $58.75/MWh to $72.87/MWh.[310] The capacity payment rose slightly to $1,790,000 per month for the five Wildflower units.[311] The term of the contract was extended by one year. Also, for the period from January 1, 2006 through June 30, 2012,

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[304] Ex. CAL-200 at 17:13-18:11 (Nichols Direct); Ex. CAL-51 at 11:10-14:2 (Nichols Direct); Exs. CAL-53, CAL-54, CAL-161, CAL-162.

[305] Ex. CAL-205.

[306] Exs. CAL-200 at 16:11-13 (Nichols Direct); CAL-204; SNA-219 at 12:12-15 (Brown Answering).

[307] Ex. SNA-219 at 12:16-18 (Brown Answering).

[308] Ex. CAL-200 at 16:16-18 (Nichols Direct); Ex. SNA-219 at 12:20-21 (Brown Answering).

[309] Ex. SNA-219 at 13:1-23 (Brown Answering).

[310] Ex. CAL-200 at 17:5-9 (Nichols Direct); Ex. COR-14.

[311] Ex. COR-14 at 3.

the fixed price of $58.75/MWh was changed to a variable charge of $25.16/MWh plus fuel costs. [312]

151. Shell's new proposal exceeded prevailing forward rates for 2002 and 2003 but remained below then-current spot rates. The new deal was tentatively approved by CDWR on March 16, 2001.[313] As of that date, forward market electricity prices at SP-15 stood at approximately $130/MWh for 2002 deliveries and $70/MWh for 2003 deliveries.[314] Spot electric prices at SP-15 on that date stood at approximately $300/MWh. [315]

152. After further wrangling on terms, CDWR and Shell signed a Letter of Intent (LOI) on April 6, 2001 for a power purchase agreement that would span eleven years and three months.[316] The LOI provided for Shell's energy sales to commence in April 2001 for 100 MW at a price of $169/MWh. Shell purchased this power on the market and sold it to CDWR at a loss to Shell, with the understanding that Shell would be made whole in the event that the agreement was not executed.[317] The LOI provided that if the anticipated long-term contract was not signed by April 30, 2001, the $169/MWh price would be retroactively revised upward to $260/MWh. [318]

153. The LOI also provided for Shell's delivery of increasing quantities of power during the summer of 2001, and even greater quantities for 2002 through 2010. Energy pricing was set as $169/MWh through 2003, and $72.87/MWh thereafter through 2005. The capacity payment was set at Shell's requested $1,790,000 per month for the five Wildflower units ($21,480,000 per year).[319] For 2006-2012, the LOI provided for a gas-

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[312] Ex. CAL-200 at 17:8-11 (Nichols Direct); Ex. COR-14.

[313] Ex. CAL-200 at 16:18-17:1 (Nichols Direct); Ex. SNA-219 at 15:1-17:2 (Brown Answering); Ex. COR-14.

[314] Ex. CAL-604 at 25, fig.5 (Goldberg Direct).

[315] *Id*.

[316] Ex. CAL-200 at 18:12-17 (Nichols Direct); Ex. SNA-219 at 17:8-18:4 (Brown Answering); Ex. COR-16.

[317] Ex. SNA-219 at 21:8-11 (Brown Answering).

[318] Ex. CAL-200 at 19:1-9 (Nichols Direct); Ex. COR-16.

[319] Ex. COR-19 at 9.

indexed price structure under which CDWR paid a $25.16/MWh fixed charge plus fuel costs. Alternatively, a tolling structure permitted CDWR to provide the volumes of natural gas needed to serve the contract.[320]

154. The final long term agreement was not completed by the April 30, 2001 LOI expiration date, so the parties agreed to extend the LOI to May 31, 2001, with May deliveries handled the same as April's at the same price of $169/MWh, and a fallback price of $315/MWh if a final deal was not signed in May.[321]

155. Tensions between Shell and CDWR ran high during the final negotiations in May. California experienced rolling blackouts on May 7 and 8, 2001.[322] Shell was concerned about delays in CDWR's plan to issue bonds to finance its long-term power procurement efforts and repay the State for funds borrowed to support power purchased during the Crisis.[323] Shell worried that the delay would obligate Shell to absorb losses by having to sell power to CDWR below market through the summer months in order to keep negotiations alive.[324]

156. Near the end of May, CDWR agreed to reimburse Shell for its power purchases on CDWR's behalf by paying for April through September 2001 purchases at monthly forward rates ranging from $245 to $350 per MWh.[325] CDWR estimated that if it did not complete the deal with Shell by May 31, 2001, it would owe Shell about $9.4 million in retroactive payments for the power that Shell had sold to CDWR in April and May 2001.[326]

157. This deal fell apart at the last minute in the office of the Governor of California. According to Hart, "CDWR was told by the administration that the Shell deal as structured on May 24, 2001 would have been a political nightmare because under it CDWR was agreeing as a contingency to retroactively pay Shell astronomical Spot

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[320] Ex. CAL-200 at 19:10-16 (Nichols Direct); Ex. COR-16.

[321] Ex. CAL-200 at 20:3-9 (Nichols Direct); Ex. SNA-219 at 20:17-20 (Brown Answering).

[322] Ex. CAL-200 at 25:12-14 (Nichols Direct).

[323] Ex. SNA-219 at 21:22-22:3 (Brown Answering).

[324] *Id*. at 22:3-5.

[325] Ex. SNA-219 at 23:4-9 (Brown Answering); Ex. COR-20.

[326] Ex. CAL-200 at 20:13-17 (Nichols Direct); Ex. CAL-207.

Market prices – the very prices that were the driving force for CDWR getting into long-term contracts."[327]

158. In place of that deal, CDWR proposed to Shell a price change for the initial period of the agreement.[328] Instead of $169/MWh through 2003 with retroactive protection as agreed upon, CDWR proposed: (i) $169/MWh for April and May 2001 purchases through May 31, 2001; (ii) $249/MWh for purchases from June 1, 2001 through October 31, 2001; (iii) $115/MWh for purchases from November 1, 2001 through June 30, 2002; and then (iv) $169/MWh for purchases from July 1, 2002 through December 31, 2003.[329]

159. This deal was signed; although the contract bears the date May 24, 2001, the parties actually executed it on May 25, 2001.[330] By this time, both spot and forward prices had fallen well below the rates set forth in the agreement. As of May 25, 2001, forward market electricity prices at SP-15 stood at approximately $75/MWh for 2002 delivery and $50/MWh for 2003 delivery. [331] Spot electric prices at SP-15 stood at approximately $110/MWh. [332]

160. In addition to the price terms for 2001 through 2003, the rest of the deal remained the same as the earlier offer: (i) $72.87/MWh from January 1, 2004 through December 31, 2005; (ii) $25.16/MWh plus fuel costs for January 1, 2006 through June 30, 2012, with a tolling structure option; and (iii) capacity payments from July 1, 2002 through December 31, 2005 for each Wildflower peaking unit that was online during that period, at the rate of $358,000 per month per unit.[333]

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[327] Ex. CAL-673 at 8:8-12 (Hart Rebuttal).

[328] Ex. SNA-219 at 23:14-25:4 (Brown Answering).

[329] *Id*. at 25:5-9.

[330] Ex. CAL-200 at 20:17-18 (Nichols Direct); Ex. CAL-31 (executed agreement).

[331] Ex. CAL-604 at 25, fig.5 (Goldberg Direct).

[332] *Id*.

[333] Ex. CAL-200 at 21:1-15 (Nichols Direct); Ex. SNA-219 at 26-27 (Brown Answering); Ex. CAL-31.

(b) Relationship of Spot Prices to Forward Prices

161. According to Complainants, the spot market's dysfunction affected forward prices during the Crisis Period. [334] Complainants rely in part on the findings of FERC Staff and its consulting economics experts, Drs. Robert S. Pindyck and Michael Quinn, in its March 2003 report in Docket No. PA02-2-000, that "the forward power contracts negotiated during the period 2000-2001 in the western United States were influenced by then-current spot prices, presumably because spot power prices influenced buyers' and sellers' expectations of spot prices in the future."[335]

162. Complainants also rely on an analysis by its own expert witness, Dr. Richard E. Goldberg, a risk management analyst, that "forward power prices at that time were likewise inflated due to Spot Market manipulation by Shell and other sellers."[336] The findings of the 2003 FERC Staff report and Goldberg's analysis are challenged by the testimony of Shell's economics expert witness, Dr. Craig Pirrong,[337] and Iberdrola's economics expert witness, Dr. Christopher L. Cavanagh.[338] For convenience, Cavanagh's critique on behalf of Iberdrola is dealt with here in addition to all the others.

163. The following charts compare the course of spot market electricity prices in the CAISO SP-15 zone to the course of forward electricity prices in that zone during the Crisis Period, from January 2000 through mid-September 2001. [339] The chart of forward electricity prices shows the price (indicated on the vertical axis) that was offered on each forward contract transaction date (indicated on the horizontal axis) for future wholesale electric power, and each separate line or dot on that chart represents a different year in which the power under the forward contract is to be delivered.

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[334] Ex. CAL-200 at 15:4-8 (Nichols Direct); Complainants Post-hearing Initial Br. at 54-62; Complainants Post-hearing Initial Br. at 5-9.

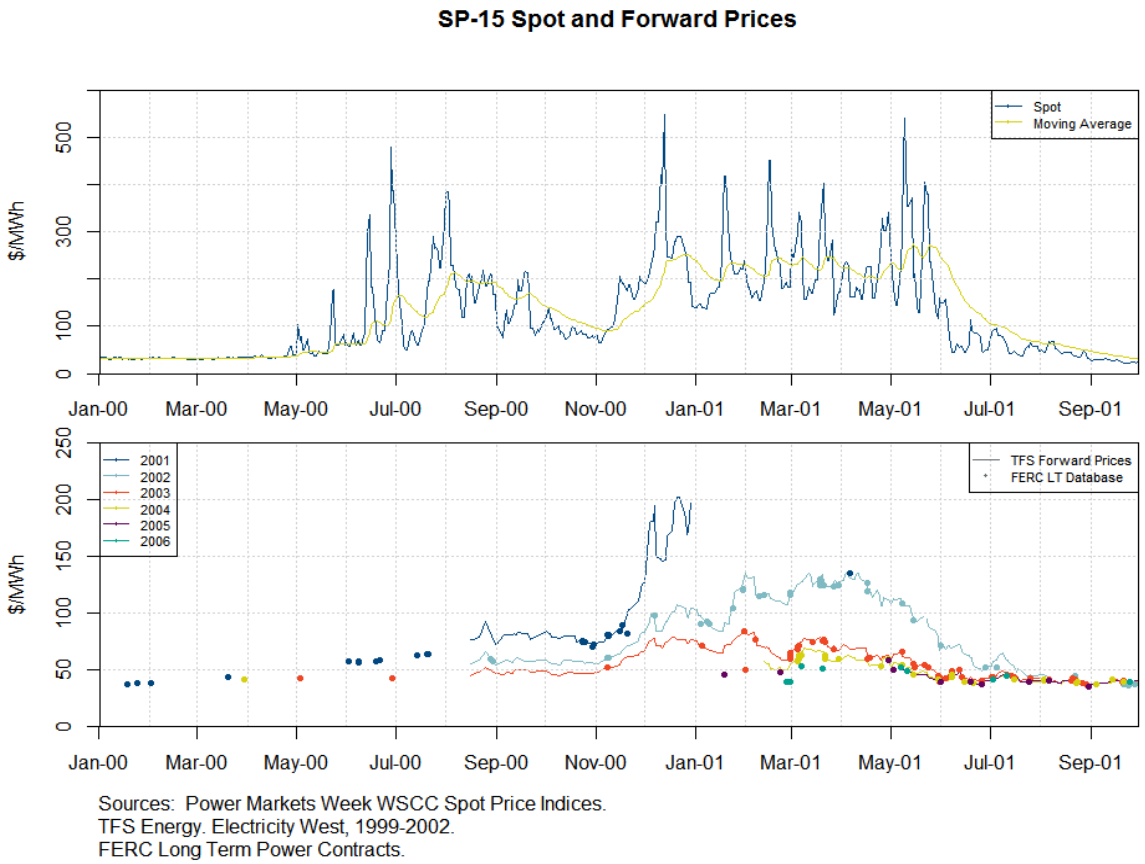
[335] Ex. CAL-291 at 189 (FERC Staff, *Final Report on Price Manipulation in Western Markets*, Docket No. PA02-2-000 (March 2003)).

[336] Ex. CAL-604 at 42:15-16 (Goldberg Direct).

[337] Ex. SNA-230 at 70-85 (Pirrong Answering).

[338] Ex. IB-242 (Cavanagh Answering).

[339] Ex. CAL-604 at 25, fig.5 (Goldberg Direct).



164. As the charts show, forward prices set during November-December 2000 for delivery of electricity in 2001 reached a high of $200/MWh at about the same time that spot market prices were at their highest, reaching over $500/MWh in December 2000. Forward prices set during February-April 2001 for delivery in 2002 reached a high of approximately $130/MWh at about the same time that spot prices hovered between $300/MWh and $400/MWh. By contrast, forward prices for delivery in 2003 and beyond fell to lower levels, as did spot market prices that were transacted after June 2001.

165. These graphs portray the FERC Staff's inference in its 2003 report that high spot market prices during the Crisis Period coincided with high forward market prices for the delivery of power through the next two years. In the FERC Staff's view, this coincidence signified that "the trauma of the dysfunctional spot power prices at that time so influenced buyers that they placed great weight on these prices in forming future expectations."[340]

[340] Ex. CAL-291 at 25 (FERC Staff, *Final Report on Price Manipulation in Western Markets*, Docket No. PA02-2-000 (March 2003)); Ex. CAL-319 at 140:15-141:4 (Taylor Direct).

166. Complainants share this view, and to support it, their expert, Goldberg, ran his own regression analysis for this proceeding in order to measure the impact on forward power prices of changes in average spot power prices from typical levels in CAISO's SP-15 zone.[341] Like the Staff analysis, Goldberg's econometric model strongly correlates forward prices in long-term electricity contracts to spot electricity prices and natural gas prices.[342]

167. Pirrong finds Goldberg's regression analysis to be flawed and has conducted his own regression analysis to test the relationship between spot electricity prices and forward electricity prices during the Crisis Period, in accordance with his own economic views.[343] Pirrong used a different regression technique than Goldberg.[344] He tested data from the SP-15, NP-15, COB, Mid-Columbia, and Palo Verde CAISO hubs.[345] The time period he tested was September 2000 through June 2001.[346] Pirrong considers his analysis to be more rigorous than Goldberg's because Pirrong's covers several hubs in the west besides just SP-15, and because it focuses on the Negotiation Period and the period immediately preceding it rather than the Crisis Period as a whole.[347]

168. Iberdrola's expert Cavanagh's analysis adds an explanatory variable to Goldberg's formula (along with correcting what Cavanagh calls Goldberg's "data processing errors") that allows for different forward contract delivery periods to have different price levels.[348] Goldberg restricted the inputs to his dependent variable for forward electric contracts to "calendar-year contracts for delivery of on-peak power to SP-15 in the FERC

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[341] Ex. CAL-604 at 36:8-9 (Goldberg Direct); Ex. CAL-607 (Regression Results tab).

[342] Ex. CAL-604 at 36:14-15 (Goldberg Direct); Ex. CAL-607 (Regression Results tab).

[343] Ex. SNA-230 at 77:3-13 (Pirrong Answering); Ex. SNA-237; Ex. SNA-238.

[344] Ex. SNA-230 at 83:10-21 (Pirrong Answering); Tr. 2022:10-2027:3 (Pirrong Cross).

[345] Ex. SNA-237 (Appendix); Ex. SNA-238.

[346] Ex. SNA-230 at 84, tbl.8 (Pirrong Answering).

[347] *Id*. at 82:7-11.

[348] Ex. IB-242 at 11:14-21 (Cavanagh Answering); Ex. IB-244; Ex. IB-245.

LT Database."[349] In other words, Goldberg's database of forward contract prices consists of calendar-year long blocks of deliveries of electric power. Cavanagh's additional explanatory variable uses as an input the calendar year of the forward contract delivery in question (*i.e.*, delivery years 2002 through 2006) in order to control for "differences in expectations with respect to capacity, other costs, demand, and other market conditions that vary depending on the contract period."[350]

169. As all four studies examined price effects in the CAISO SP-15 zone, it is instructive to look at the following table comparing the key findings of the most readily comparable regression that was conducted by each expert for that zone:

[349] Ex. IB-242 at 8:13-14 (Cavanagh Answering) (*quoting* Ex. CAL-604 at 37:1-2 (Goldberg Direct)).

[350] Ex. IB-242 at 11:17-19 (Cavanagh Answering); Tr. 2480:18-2485:4 (Cavanagh Cross).

Study	Time Period of Study	Spot Electric Price Coefficients			Number of Observations	R^2 [* = Statistically Significant]
		Delivery Year	Coefficient and Sign	Statistically Significant		
FERC Staff Report ("During" Period; OLS Regression)[351]	January 1, 2000-June 30, 2001	1-2	+ 0.23	Yes	89	0.60
		3-4	+ 0.07	Yes	142	0.39
		5-8	+ 0.04	No	83	0.46
Complainants (Goldberg)[352]	January 2000-March 2002	0-1	+0.27	Yes	288	0.93*
		1-2	+0.20	Yes		
		2-3	+0.18	Yes		
		3-4	+0.18	Yes		
		4-5	+0.15	Yes		
Shell (Pirrong)[353]	September 2000-June 2001	Year 1	- 0.07	Yes	157	0.81*
		Year 2	- 0.04	Yes		0.79*
		Year 3	- 0.03	Yes		0.51
Iberdrola (Cavanagh)[354]	January 2000-March 2002	0-1	+0.11	Yes	288	0.95*
		1-2	+0.12	Yes		
		2-3	+0.12	Yes		
		3-4	+0.22	Yes		
		4-5	+0.03	No		

170. Shell's spot electric price coefficients differ significantly from those of Complainants, Iberdrola, and the 2003 FERC Staff report in that Shell's have negative signs compared to the others' positive signs. Shell's negative signs suggest an inverse relationship between the direction of changes in forward contract prices and the direction of changes in spot prices, whereas the positive signs of the coefficients of FERC Staff, Complainants and Iberdrola suggest a direct relationship between such changes. Shell's range of data covers the narrowest time period of any of the studies.

171. While Pirrong's finding is the opposite of what the FERC Staff report, Goldberg and Cavanagh collectively found, one overarching conclusion is supported by all four

[351] Ex. CAL-291 at 391 (FERC Staff, *Final Report on Price Manipulation in Western Markets*, Doctket No. PA02-2-000 (March 2003)) (tbl.V-C1).

[352] Ex. CAL-604 at 48 (Goldberg Direct).

[353] Ex. SNA-230 at 84:11 (tbl.8); Ex. SNA-237 at 2.

[354] Ex. IB-242 at 18 (tbl.3) (Cavanagh Answering); Ex. IB-244 (Column 5).

analyses: *that spot electric prices correlated closely with forward electric prices within a period of two to three years following the end of the Crisis*.

172. Moreover, the positive, statistically significant signs of the spot price coefficients of three out of the four regressions (that is, the FERC Staff report, Goldberg for Complainants, and Cavanagh for Iberdrola) support the conclusion that *forward electric prices rose as spot electric prices rose and fell as spot electric prices fell* during this period. The countervailing negative signs of the coefficients of Pirrong's regression on behalf of Shell suggest an opposite relationship between spot and forward prices, but only for the much narrower time period of the Crisis that Pirrong observed (*i.e.*, September 2000-June 2001).

173. A 2000 paper by Pirrong that Complainants introduced in evidence during Pirrong's cross-examination makes the point that, in a study that he conducted of the PJM market, forward prices incorporate a significant risk premium over the spot prices of corresponding delivery dates, and overreact to load shocks.[355] Unlike forward prices, Pirrong's paper continues, spot prices themselves are predictable by "very well behaved" independent variables, particularly weather and fuel prices.[356]

174. Pirrong's paper and testimony do not contradict the results of the other experts. That dysfunctional spot prices during the Crisis Period influenced forward prices for deliveries occurring up to two years after that period fits Pirrong's narrative that risk premiums are significant drivers of forward prices. The dysfunctional spot prices undoubtedly amplified the perceived risk for market participants setting forward prices during the Crisis. That they drove the risk premium embedded in forward prices down as well as up, as Pirrong found in his more narrowly-focused regression, should come as no surprise. This finding underscores that the California Crisis was a unique and anomalous event –indeed, an "extraordinary circumstance" that should impel avoidance of the *Mobil-Sierra-Morgan Stanley* presumption.[357]

175. In conclusion, the preponderance of the evidence demonstrates that forward market participants during 2000-2001expected the dysfunctions present in the spot electric market of that time to have an impact on future spot prices, as reflected in 2000-2001 forward prices, for at least two years into the future; that is, on deliveries during

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[355] Ex. CAL-912 at 4, 25, 39.

[356] *Id*. at 38.

[357] *Morgan Stanley*, 554 U.S. at 551 ("We think that the FPA intended to reserve the Commission's contract abrogation power for those extraordinary circumstances where the public will be severely harmed.")

2002 and 2003.[358] All but one analysis suggest that spot price increases induced forward prices for deliveries in 2002 and 2003 to rise, and that decreases induced those forward prices to fall.

176. Accordingly, Complainants have proved that dysfunction in the spot market in 2001 had an upward influence on forward market pricing through delivery years 2002 and 2003.

(c) Relationship of Forward Prices to Contract Negotiations

177. Both Shell and CDWR claim to have considered prices in the forward market when formulating their negotiating strategies for the long term contract at issue and in evaluating the offers made by Shell.[359] As stated earlier, in order for Complainants to meet their burden of proving that forward electric prices, as influenced by Shell's unlawful manipulation of spot market electric prices, directly affected the Shell-CDWR long term contract negotiations, Complainants must prove that Shell's unlawful activities "eliminated" the premise of a "fair, arms-length negotiation" by upsetting the balance of bargaining power between itself and CDWR.[360]

178. Complainants rely on the testimony of Nichols and Hart for the impact of forward prices on CDWR's negotiating posture.[361] The CDWR employee who had the most direct daily involvement in the Shell contract negotiations – Tara Nolan – did not testify in person, but excerpts from the written transcript of her October 10, 2002 videotaped

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[358] Ex. CAL-90 at 24:18-30:11 (Stoft Direct); Ex. CAL-604 at 26:1-8 (Goldberg Direct).

[359] Ex. COR-1 at 18:11-23 (Brown Answering); Ex. SNA-219 at 29:10, 31:6-22 (Brown Answering); Ex. SNA-222 at 2:25-3:17 (Nolan Dep.).

[360] *Morgan Stanley*, 554 U.S. at 554 (The direct effect must be one which "eliminates the premise on which the *Mobile-Sierra* presumption rests: that the contract rates are the product of fair, arms-length negotiations."); *Am. Soc. of Composers, Authors & Publishers v. Showtime/The Movie Channel, Inc.*, 912 F.2d 563, 584-585 (2d Cir. 1990) ("If the negotiating parties exert generally equivalent bargaining leverage, the results may be viewed as a reasonable equivalent of a competitive market.").

[361] Ex. CAL-51 at 2:20-4:2 (Nichols Direct); Ex. CAL-156 (Nichols Rebuttal); Ex. CAL-200 at 2:8-11 (Nichols Direct); Ex. CAL-670 (Nichols Rebuttal); Ex. CAL-12 at 2:1-7 (Hart Direct); Ex. CAL-210 at 2:14-3:7 (Hart Direct).

deposition were admitted into the record of this case.[362] Brown and Bowman testified on behalf of Shell.[363] Commission Staff also offered the testimony of its expert witness, Daniel L. Poffenberger, a FERC rate filings specialist, on whether forward market prices affected the pricing and other terms and conditions negotiated between Shell and CDWR.[364]

179. In terms of forward prices, Shell assessed the contract with CDWR to be a winning deal for itself. According to Bowman, the downward course of forward electric prices starting in April 2001 increased the value of the fixed-price long term agreement.[365] When the deal was struck, Shell had locked in some of its natural gas fuel supply as a hedge against price increases, but not all of the fuel that was necessary.[366] Shell's contract position benefitted from the portion that was not hedged as a result of the decline in forward gas prices.[367] From shortly after execution of the CDWR long term contract through year-end bonus time in 2001, Bowman was reporting to her superiors at Shell that the value of the long term contract with CDWR had reached nearly $500 million, "reflect[ing] the outcome in today's lower power and gas market."[368]

180. CDWR's view of the contract negotiations came from a more complex perspective. CDWR's goal was to reduce the Net Short by entering into fixed-price, long term contracts, thereby reducing the remaining Net Short's exposure to high spot market prices. By so doing, CDWR hoped to drive down demand in the spot market, and thereby drive down spot market prices. As for the cost of the long term contracts, CDWR was more concerned with meeting immediate power needs, not the cost of power needs

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[362] Ex. COR-67 (Nolan Dep.); Ex. SNA-222 (Nolan Dep.).

[363] Ex. SNA-219 at 5:15-19 (Brown Answering); Ex. SNA-200 at 4:18-22, 7:1-13 (Bowman Answering); Tr. 1499:3-6 (Bowman Cross).

[364] Ex. S-100R at 31:18-43:17 (Poffenberger Answering).

[365] Tr. 1567:23-1568:5 (Bowman Cross).

[366] Tr. 1568:3-10 (Bowman Cross).

[367] *Id*. at 1568:3-10.

[368] Tr. 1573:5-16 (Bowman Cross); Ex. CAL-888 at 2; Ex. CAL-319 at 185:4-6 (Taylor Direct); Ex. CAL-451 at 3; Complainants Post-hearing Initial Br. at 70. Although Shell disputes this fact, it does so by misinterpreting the meaning of a draft Shell document. Shell Post-hearing Reply Br. at 24-25; Ex. CAL-889 at 22; Tr. 1561:12-1562:7 (Bowman).

many years into the future. Long term contracts were viewed by CDWR as a way to pay off immediate power needs over time, not as a hedge to lock in the cost of future power purchases. [369]

181. It is not surprising, therefore, that there is little evidence that CDWR compared the costs of its long term contract offers (including Shell's offers) to then-prevailing forward prices, which by April 2001 were declining for deliveries in future years. The evidence shows only that CDWR focused on reliability and reducing the size of the Net Short in early 2001.[370] CDWR appeared to be oblivious to the cost of locking up the long term power that it was incurring, as a comparison of its deals to then-available forward prices for alternative sources shows.

182. CDWR's disregard for forward prices as it entered into long term contract negotiations is confirmed by the following CDWR response to a discovery request that is mentioned by Staff's expert, Poffenberger, in his testimony:

> Estimated ranges of potential forward prices were reviewed in preparing for the evaluation of proposals submitted to CDWR. However, the nature of the dysfunctional market made use of such forward price curves of very limited value. *As a result of the difficulty in using forward price curves, through April 2001, CDWR did not rely upon forward price curves in its negotiation of long-term forward contracts, but rather ranked the proposals that were received.* Later, when the market began to become more stabilized, forward price curves were used to determine potential savings realized when compared to spot market trends and the uncertainty of those trends. [371]

183. Complainants counter that CDWR indeed took forward prices into account when it evaluated contract offers in response to its RFPs using a computer model.[372]

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[369] Ex. CAL-200 at 5:11-6:17 (Nichols Direct); Ex. CAL-670 at 10:9-14 (Nichols Rebuttal); Tr. 642:20-25 (Pacheco Cross); Tr. 2688:13-20 (Ritchie Closing Arg.) ("PRESIDING JUDGE: … [CDWR] wanted to have those long-term contracts because then they could delay out the payments for the high spot prices they had to pay in the beginning; right? MR. RITCHIE: That was the exchange. That was the cost to keep the lights on … in California. They were forced to take these longer term deals, yes.").

[370] Tr. 2645:2-2647:1 (McKeon Closing Arg.); Tr. 2679:7-21 (Berman Closing Arg.).

[371] Ex. S-100R at 33:17-26 (Poffenberger Answering) (emphasis added); Ex. S-7.

[372] Ex. CAL-200 at 17:12-18:11 (Nichols Direct); Ex. CAL-205; Ex. CAL-51 at

(continued ...)

Complainants point to only one contemporaneous item of evidence in the record that purports to show how this model was used to evaluate the Shell offer.[373]

184. This evidence consists of a one-page internal CDWR memo dated March 12, 2001 from Tara Nolan to Ron Nichols and others evaluating the Shell contract proposal as negotiations stood at that time.[374] The memo states in relevant part as follows:

> Attached is a pricing model that Arun Mani did this afternoon. The pricing represents an attempt to put all of the capacity payments AND an estimate of the above market cost of the 7x24 power onto the 6x16 power so that we can compare this deal to other deals. Because of this if we change the value of the 7x24 pricing the this model and decide that we can live with that "effective 6x16 price, then we need to evaluate the balance of the deal as though the 7x24 power was priced at the assumed input price and the 7x16 shaped monthly is priced at the energy prices quoted by Coral, through 2005.
> If we set the value of the SHAPED 7x24 power (which is what we are buying from Coral) at
> 2002 $65
> 2003 $65
> 2004 $55
> 2005 $55
> The effective cost of the 6x16 power (most of which is SRA driven) which is shaped monthly as well, is:
> 2001 $169
> 2002 $232
> 2003 $269 (we are getting less MW overall so the number pops up)
> 2004 $118.94
> 2005 $118.90
> All other power purchased under the contract, which is the 7x16 is priced at $169 through 2003, $72.87 2004 through Dec 31, 2005, and Tolling charge of $25.16 MWh plus fuel pass through at 7,250 HR.[375]

11:10-14:2 (Nichols Direct); Ex. CAL-53; Ex. CAL-54.

[373] Tr. 286:14-24 (Nichols Cross).

[374] Ex. CAL-205; Tr. 286:14-24 (Nichols Cross).

[375] Ex. CAL-205 (*sic*; emphasis in original).

185. Translated into plain English, Nolan's memo describes an effort by Arun Mani, CDWR's pricing analyst, to compare the yearly costs of the Shell contract offer to other 6x16 power offers being made to CDWR. To do so, Mani apparently converted the energy and capacity costs of the 7x24 power that Shell offered to CDWR in late February 2001[376] into an "effective" cost for 6x16 power, the form that CDWR preferred to receive from sellers.[377] A unit of 7x24 power is a larger quantity of energy than a unit of 6x16 power. A unit of 6x16 power is generally considered to be more valuable and, hence, more expensive, than 7x24 power because it is the output of a peaking generator. In taking 7x24 power, CDWR presumably dispensed with the extra day and the extra eight hours of energy, even though it still paid for them.

186. The result for this "reshaped" configuration of energy (that is, the cost of 7x24 energy and capacity applied to a 6x16 configuration)[378] appears in the memo as the second listing of yearly costs for 2001-2005, ranging from a high of $269/MWh in 2003 to a low of $118.94/MWh in 2004. It is unclear how CDWR derived what it lists as an annual "value" for the 7x24 power that it intended to buy from Shell during 2002-2005, which drops gradually from $65 to $55 per MWh. There is no evidence of whether these values represent CDWR's calculated forecast of what forward prices would be for deliveries in the listed years, or just guesses.

187. The yearly costs for "reshaped" 6x16 power that are calculated in the Nolan memo are far above what prevailing forward market prices then were for power deliveries in the listed years. As of that date, forward market electricity prices at SP-15 stood at approximately $130/MWh for 2002 deliveries and $70/MWh for 2003 deliveries.[379] By contrast, spot electric prices at SP-15 on that date stood at about $300/MWh.[380]

188. If CDWR had been taking forward prices into account, then this memo should have signaled to CDWR that the Shell proposal would cost far too much as a source of electric energy going forward. CDWR, however, appeared to be focused exclusively on

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[376] Ex. COR-11.

[377] Ex. CAL-205; *see* Ex. COR-67 at 179:19-180:2 (Nolan Dep.) (6x16 power was important to CDWR "[b]ecause load increases aren't steady, so this would help them with the net short, which was exacerbated during the peak periods."), 202:4-12 ("In terms of just price and a product, seven by 24 was ugly.").

[378] *See* Tr. 2720:20-2722:10 (Watkiss Closing Arg.).

[379] Ex. CAL-604 at 25, fig.5 (Goldberg Direct).

[380] *Id*.

the upcoming summer of 2001. During the months of April through September 2001, CDWR expected electricity prices to range between $245/MWh and $350/MWh.[381] Shell's offer for 2001, by contrast, stood firmly at $169/MWh for that narrow time period.[382] Despite the implications of her memo for the course of future prices, Nolan thought that the deal looked acceptable, and her boss, Ray Hart, thought after its execution that it was a good deal.[383]

189. Thus self-convinced, CDWR made its final offer to Shell on May 24, 2001: (i) $169/MWh for April and May 2001 purchases through May 31, 2001; (ii) $249/MWh for purchases from June 1, 2001 through October 31, 2001; (iii) $115/MWh for purchases from November 1, 2001 through June 30, 2002; and then (iv) $169/MWh for purchases from July 1, 2002 through December 31, 2003.[384]

190. CDWR appeared to be oblivious to the fact that, by the time this contract was signed, forward prices had fallen further below the Nolan memo's estimated cost for power. As of May 25, 2001, forward market electricity prices at SP-15 stood at approximately $75/MWh for 2002 delivery and $50/MWh for 2003 delivery. [385] Spot electric prices at SP-15 stood at approximately $110/MWh. [386]

191. There is no evidence that CDWR's modeling technology was capable of alerting CDWR about declining spot and forward prices. Its sole purpose was to estimate the cost of the Net Short through 2003 based upon a projection of production costs, after taking into account whatever executed and proposed long term contracts were executed or under consideration when the model was run.[387] The model did not predict forward prices that

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[381] Ex. COR-67 at 229:17-232:10 and Dep. Ex. 11 (Nolan Dep.).

[382] Ex. COR-14 at 3.

[383] Ex. CAL-205; Ex. SNA-223 at 5:14-19, 8:2-4; Ex. COR-67 at 230:9-232:10 (Nolan Dep.) ("Q: … The $169 per megawatt hour price is actually under the market for six by 16; correct? A: It was less than DWR expected to pay if they had to go buy that elsewhere on the open market. … Q: That fact, among other things, was driving your recommendation to the contracts committee that this power purchase agreement makes sense. A: Yes.").

[384] Ex. SNA-219 at 25:5-9 (Brown Answering).

[385] Ex. CAL-604 at 25, fig.5 (Goldberg Direct).

[386] *Id*.

[387] Ex. CAL-156 at 14:12-19:16 (Nichols Rebuttal); Ex. CAL-161; Ex. CAL-162; *(continued ...)*

CDWR was actually observing in the market during the Crisis. To correct for this flaw, CDWR adjusted the model's results with "adders."[388] Even then, there is no evidence that the model's projections accurately represented conditions in the forward market. Hence, there is no evidence that the model could tell CDWR whether the deal with Shell made economic sense.

192. The continuing decline of forward prices after the deal was signed proved to be costly to CDWR. It signaled that paying the high locked-in power prices of the Shell contract over the next two to three years would be more expensive for CDWR than acquiring power in the forward market would have been. In its testimony, CDWR explains away this paradox by viewing the excess payment as a necessary cost of avoiding a $9.4 million debt that it would have owed Shell for summer 2001 power purchases on its behalf if it had not signed the contract.[389] This view, however, neglects the opportunity cost of foregoing the more reasonable forward prices that were already available for alternative sources of power.

193. The deal was also costly to CDWR because it agreed to pay for capacity as well as energy. It paid Shell for capacity from its Wildflower units at a fixed rate of $358,000 per unit per month for each of the five generating units for a period of three years and five months.[390] Paying for capacity made sense as an incentive to build more generation in California. But in the absence of an organized capacity market, energy prices alone are supposed to compensate generators for their fixed costs of building and maintaining capacity in the long run. Had CDWR relied on the forward energy market over the long term instead of the Shell contract, it would have paid only energy charges and would not have had to pay capacity charges. Shell's energy-only initial offer to CDWR in February 2001 is an example of the type of deal that CDWR could have arranged, without any capacity payment at all.[391]

194. Shell, as a large multinational corporation, had indisputably strong bargaining power during the Crisis Period. Complainants allege that CDWR, by comparison, was in a weak bargaining position, with a small staff, minimal resources, and little time to plan,

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Ex. COR-67 at 181:17-24, 191:8-20, 136:24-137:12 (Nolan Dep).

[388] Ex. CAL-156 at 17:16-19:16 (Nichols Rebuttal).

[389] Ex. CAL-200 at 20:13-17 (Nichols Direct);

[390] Ex. CAL-31 (Shell-CDWR Contract, ¶ 3.5).

[391] Ex. CAL-203; Ex. SNA-219 at 8:5-8 (Brown Answering); Ex. COR-1 at 12:7-14 (Brown Answering).

negotiate and analyze deals in the face of its enormous mandate of meeting the Net Short every hour of every day.[392] The evidence of record, however, does not support the notion advanced by Complainants that Shell was in a more advantageous bargaining position than CDWR.

195. Several facts of record belie Complainants' image of a hapless CDWR. CDWR had experienced personnel in charge and a close liaison with the Governor of California; it also hired a multi-million dollar stable of consultants that was a veritable "Who's Who" of the financial world.[393] As the entity responsible for making up the Net Short, it benefitted from being the principal purchaser of electricity in the State.[394] Throughout the negotiations with Shell, the terms and conditions of the contract were largely dictated to Shell by CDWR.[395] CDWR's bargaining strength, therefore, was at least equal to Shell's.

196. All told, it is evident that forward electricity prices did not play a decisive role in the long term contract negotiations between CDWR and Shell because one of the two parties to the negotiation – CDWR – did not act consistently with the economic signals that such prices sent. CDWR's short-term political and reliability concerns narrowed its attention to acquiring enough power to meet the Net Short right away and to mitigate the spot market cost of that power by stretching its payment out over a long period of time. Indeed, CDWR was encouraged by FERC to pursue this course and ignore the cost of acquiring long term power, according to the testimony of Jim McIntosh, CAISO's Director of Scheduling.[396]

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[392] Ex. CAL-210 at 9:1-10:4 (Hart Direct); Ex. CAL-673 at 3:1-4:13 (Hart Rebuttal).

[393] Tr. 209:4-214:22 (Nichols Cross).

[394] Tr. 182:2-7 (Nichols Cross); Ex. MSC-17 at 3 ("As more and more of the energy supply to meet the net short obligation is placed under contract by CDWR, the more the CDWR purchases set the market.")

[395] Ex. S-100R at 42:17-43:17 (Poffenberger Answering); Ex. S-105 at 3 (originally AYE-51; CDWR memo reviewing progress of negotiations and noting that "sellers had to concede numerous points to obtain the terms and provisions they ultimately ended up with in the agreements").

[396] Ex. CAL-680 at 7:7-10, 9:6-8 (McIntosh Rebuttal) ("During several phone calls FERC had made clear to me that cost should not be a factor in procuring power, even though FERC knew we often had to pay 5 to 10 times the usual price for energy."); Tr. 605:14-606:8 (McIntosh Cross).

197. As stated earlier, the Commission requires Complainants in this case to show "that the unlawful behavior must have directly affected contract negotiations in order for the *Mobile-Sierra* presumption to be overcome."[397] In doing so, Complainants must show that Shell's behavior influenced forward prices in a way that upset the balance of bargaining power between itself and CDWR.[398] While a preponderance of the evidence shows that forward prices influenced Shell's view of the contract, it fails to show that forward prices had anything to do with CDWR's approach to the contract. Indeed, Complainants concede that Shell's unlawful activities had only an indirect impact on negotiations for the Shell-CDWR long term contract.[399] Shell cannot be faulted for something that played no part in the balance of bargaining power between Shell and CDWR.

198. Accordingly, Complainants have not shown that forward prices influenced negotiations for the Shell-CDWR long term contract.

ii. Market Power by Credit Rationing

199. Complainants offer testimony from Fox-Penner to show that Shell exercised market power in the spot market by "rationing credit" during the Crisis Period, which elevated its own sale prices to CDWR above the sale prices that other sellers received from CDWR during the same period.[400]

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[397] *CPUC v. Sellers of Long-Term Contracts*, 150 FERC ¶ 61,079, at P 12 n.17 (2015) (Clarifying Order); *accord*, 149 FERC ¶ 61,127, at P 25 (2014) (Order on Remand); *see also Morgan Stanley*, 554 U.S. at 554 ("[U]nlawful market activity that directly affects contract negotiations eliminates the premise on which the *Mobile–Sierra* presumption rests: that the contract rates are the product of fair, arms-length negotiations.").

[398] *Morgan Stanley*, 554 U.S. at 554 (The direct effect must be one which "eliminates the premise on which the *Mobile-Sierra* presumption rests: that the contract rates are the product of fair, arms-length negotiations."); *Am. Soc. of Composers, Authors & Publishers v. Showtime/The Movie Channel, Inc*., 912 F.2d 563, 584-585 (2d Cir. 1990) ("If the negotiating parties exert generally equivalent bargaining leverage, the results may be viewed as a reasonable equivalent of a competitive market.").

[399] Ex. CAL-717 at 106:3-8, 123:10-124:2 (Taylor Rebuttal).

[400] Ex. CAL-513 at 8:1-70:2 (Fox-Penner Direct); Complainants Post-hearing Initial Br. at 28.

200. Shell's expert witness, Pirrong, counters that Fox-Penner fails to show that Shell caused the spot market to be non-competitive, or that its conduct caused prices to exceed the levels that would be observed in a workably competitive environment.[401] Hence, Pirrong argues, Fox-Penner shows no nexus between Shell's actions and the allegedly supercompetitive prices that Shell charged CDWR.[402]

201. Unlike the southern end of California, the northern end was a constrained market during the Crisis Period that relied heavily on imports of electricity from a small, highly concentrated group of suppliers at the California-Oregon Border, or "COB," particularly as the time for dispatch approached in any given supply hour.[403] Shell was particularly active at COB, and because of its large credit line was able to command high prices from CDWR in Real Time sales by reselling power that other suppliers were unwilling to sell directly to CDWR because of its credit problems.[404] As a result, Shell's prices to CDWR were consistently higher at COB than the prices of other sellers to CDWR at COB.[405]

202. Shell's opportunity for high margins with its strong credit position came when other parties, who had exhausted their credit lines, were willing to "sleeve" their sales of power to CDWR through Shell by selling to Shell for resale to CDWR.[406] Complainants equate this opportunity with the power to raise prices in a constrained region by withholding transmission to CDWR.[407]

203. "Market power" is described as "[t]he ability to price profitably above the competitive level," and such conduct "leads to welfare losses by society."[408] It is usually demonstrated when a firm or group of firms possess "the ability profitably to maintain

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[401] Ex. SNA-230 at 26:24-27:2 (Pirrong Answering).

[402] Ex. SNA-230 at 27:2-3 (Pirrong Answering).

[403] Ex. CAL-717 at 88:3-5 (Taylor Rebuttal).

[404] *Id*. at 91:2-6, 101:1-102:20.

[405] *Id*. at 91:6-94:16.

[406] I*d*. at 102:18-20.

[407] I*d*. at 103:9-17.

[408] Dennis W. Carlton & Jeffrey M. Perloff, *Modern Industrial Organization* 8 (4th ed. 2005).

prices above competitive levels for a significant period of time."[409] The original February 25, 2002 complaints in this case allege that the long term contracts that Shell and the other accused sellers had entered into with CDWR must be abrogated because they were "tainted with the exercise of market power, rendering each challenged contract unjust and unreasonable in violation of § 206 of the FPA."[410]

204. Complainants' burden of proving their allegation that Shell exercised market power by rationing credit at COB is not met, however, merely by asserting that Shell realized high prices for large sales of power to CDWR. Proof that Shell has exercised market power by manipulating credit first requires Complainant to prove that Shell *has* market power in a relevant market. This is not accomplished merely by saying so, or merely by listing a group of Herfindahl-Hirschman Indices (HHIs).[411]

205. Rather, an analysis must be made of many factors that Complainants do not mention at all, including the horizontal or vertical structure of the market, the relevant product and geographic markets, the existence of barriers to entry, the availability of alternatives, the concentration of market shares, and other factors.[412] Complainants have already failed in a previous case before the Commission to prove that Shell had market power in connection with bilateral wholesale energy contracts in the Pacific Northwest, which is the same locale for the exercise of market power that Complainants allege against Shell here. [413]

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[409] U.S. Dep't of Justice & Federal Trade Comm'n, *Horizontal Merger Guidelines* § 0.1 (1992, revised 1997).

[410] *See CPUC v. Sellers of Long-Term Contracts*, Section 206 Complaint, at 4 (Docket No. EL02-60-000, February 25, 2002) ("The contracts challenged herein must be rejected as in violation of the applicable statutory standard. The prices, terms, and conditions in each challenged contract are tainted with the exercise of market power, rendering each challenged contract unjust and unreasonable in violation of § 206 of the FPA.").

[411] Ex. CAL-717 at 91:1-94:16 (Taylor Rebuttal).

[412] *See*, *e.g.*, *Refinements to Policies and Procedures for Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities*, 153 FERC ¶ 61,065 (2015).

[413] *Puget Sound Energy v. All Jurisd. Sellers*, 151 FERC ¶ 61,173, at PP 165-166 (2015) (Opinion No. 537).

206. Although proof that Shell had exercised market power in the Real Time spot market at COB might show that it potentially influenced forward market prices, it says nothing about whether Shell engaged in unlawful activity in the spot market that violated a tariff provision, a key element for showing that the *Mobile-Sierra-Morgan Stanley* Rule is avoided in this case.[414]

207. The mere juxtaposition of the phrases "market power" and "credit rationing" with one another does not prove anything relevant to the more limited issue here of whether the public interest concerns of the *Mobile-Sierra-Morgan Stanley* rule are avoided. Nor is it necessary to offer such proof; the Commission here only wants to know (1) whether Shell engaged in unlawful manipulation in the spot market (which the evidence discussed above shows that it did); and (2) whether that manipulation directly affected its contract with CDWR (which is discussed below). Complainants' "credit rationing" theory of market power strays too far outside of those narrow confines.

iii. Gas Market Manipulation

208. Complainants also presented testimony from Berry on the alleged price effects on electric forward markets of Shell's unlawful activities in the natural gas market. Berry testified at the hearing that these activities had direct effects on the negotiations of the Shell-CDWR long term contract.[415]

209. In their December 17, 2014 request for rehearing of the Order on Remand in this case, Complainants asked the Commission to make clear for purposes of the "avoidance" prong of the *Mobile-Sierra-Morgan Stanley* Rule that evidence of manipulation may be introduced in this proceeding that extends beyond "unlawful market activity in the spot market."[416] In particular, they asked the Commission to make clear that evidence could

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[414] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 24 (2014) ("The Complainants, when they allege unlawful spot market manipulation by the Respondents, are expected to be specific when presenting their arguments and evidence on this issue; the Complainants are required to specify which tariff provision and/or portion of the tariff provision the Respondents' conduct violated.").

[415] Tr. 977:12-979:23 (Berry Cross); Complainants Post-hearing Initial Br. at 35-37; Complainants Post-hearing Reply Br. at 20-21.

[416] *California Parties' Request for Clarification or Rehearing*, at 4 (December 17, 2014).

be introduced of "Respondent's unlawful manipulation activity in … the markets for natural gas as they existed prior to and during the time of contract negotiation…." [417]

210. The Commission, however, did not go that far. In the Clarifying Order, the Commission decided:

> … [T]hat relevant evidence is not limited to the spot market, and could include the respondents' *market practices and behaviors to the extent that such conduct violated a then-current tariff or Commission order*. The Commission leaves it to the Presiding ALJ to make a finding, based on the record compiled at hearing, on whether the market practices offered as evidence of the respondents' unlawful behavior *violated the MMIP or other tariff provisions and Commission orders*. [footnote omitted] We reiterate here that Complainants are expected *to be very specific as to which tariff provision and/or portion of the tariff provision was allegedly violated*. [418]

In short, the Commission in its Clarifying Order confined this proceeding to unlawful activity in the spot electric market in which the tariffs and Commission orders in question controlled, and did *not* extend its reach to unlawful activity in the natural gas markets.

211. Berry's testimony is based on investigations by the Commodity Futures Trading Commission of Shell's activities in the natural gas market that violate the Commodity Exchange Act.[419] It is not based on any violation of the MMIP or other tariffs or Commission orders that are related to the California electricity market. Berry offers no testimony to that effect.

212. Complainants assert that CDWR used natural gas forward prices in its modeling to evaluate the Shell contract, and therefore that Shell's unlawful activity in the natural gas market affected contract negotiations.[420] However, the fact that CDWR did so misses the point. It is not CDWR's use of natural gas forward prices for its modeling that is the focus of the Clarifying Order; it is *Shell's unlawful activities in the electric spot market* that is the focus. CDWR's use of natural gas prices in its contract analysis models does

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[417] *Id.*

[418] *CPUC v. Sellers of Long-Term Contracts*, 150 FERC ¶ 61,079, at P 12 (2015) (Clarifying Order) (emphasis added).

[419] 7 U.S.C. §§ 1 *et seq.* (2014); Exs. CAL-270 through CAL-274.

[420] Ex. CAL-268 at 21:2-12 (Berry Direct); Ex. CAL-51 at 6:15-18 (Nichols Direct); Tr. 1005:10-21 (Berry Cross).

not demonstrate that Shell's activities in the gas markets violated an *electric* tariff or Commission Order affecting the electric market. Accordingly, CDWR's use of gas forward prices in its modeling to evaluate the Shell contract is irrelevant.

213. In sum, Berry's testimony falls outside the scope of this proceeding and presents no adequate showing that Shell's activities in the natural gas markets had any price effect in the California spot electricity market or directly affected the contract negotiations between CDWR and Shell.

iv. Bad Faith, Unconscionability, Duress, and Fraud

214. The Supreme Court held in *Morgan Stanley* that "FERC has ample authority to set aside a contract where there is unfair dealing at the contract formation stage," such as the "traditional grounds for the abrogation of the contract" like bad faith, fraud, or duress.[421] Finding any of these grounds serves as a basis for "avoiding" the *Mobile-Sierra-Morgan Stanley* Rule.

215. By its own terms, the Shell-CDWR contract is "governed by and construed and enforced and performed in accordance with the laws of the State of California."[422] California law recognizes the common law torts of "bad faith," "duress," "unconscionability," "fraud in the inducement to contract," and "fraud in the inception of a contract."[423] These torts embody *Morgan Stanley*'s "traditional grounds" for abrogating a bilateral power contract.

216. Under California common law, "bad faith" is "equated with dishonesty, deceit or unfaithfulness to duty," and usually involves a factual inquiry into the perpetrator's subjective state of mind, based largely on circumstantial evidence.[424] A contract is

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[421] *Morgan Stanley*, 554 U.S. at 557.

[422] Ex. CAL-31 (amended section 10.6).

[423] *Rosenthal v. Great W. Fin. Sec. Corp.*, 14 Cal. 4th 394, 926 P.2d 1061 (1996); *Ford v. Shearson Lehman Am. Express, Inc.*, 180 Cal. App. 3d 1011, 225 Cal. Rptr. 895 (Ct. App. 1986).

[424] *Alpha Mech., Heating & Air Conditioning, Inc. v. Travelers Cas. & Sur. Co. of Am.*, 35 Cal. Rptr. 3d 496, 512 (Ct. App. 2005) ("Good faith, or its absence, involves a factual inquiry into the [perpetrator's] subjective state of mind: Did he or she believe the action was valid? What was his or her intent or purpose in pursuing it? A subjective state of mind will rarely be susceptible of direct proof; usually the trial court will be required to infer it from circumstantial evidence." (citations and some punctuation omitted)).

"unconscionable" under California tort law where in the formation there is "an absence of meaningful choice on the part of one of the parties, together with contract terms that are unreasonably favorable to the other party."[425] The tort of "duress" exists under California law where "the doing of a wrongful act" is "sufficiently coercive to cause a reasonably prudent person faced with no reasonable alternative to succumb to the perpetrator's pressure."[426]

217. Regarding "fraud in the inducement to contract" and "fraud in the inception of a contract," the meaning of, and difference between, the two torts has been described by the California courts as follows:

> In the usual case of fraud, where the promisor knows what he is signing but his consent is *induced* by fraud, mutual assent is present and a contract is formed, which, by reason of the fraud, is *voidable*. In order to escape from its obligations the aggrieved party must rescind, by prompt notice and offer to restore the consideration received, if any.
>
> The cases recognize the familiar distinction between fraud in the inducement ... and fraud in the *inception, factum, or execution*. If the fraud goes to the inception or execution of the agreement, **so that the promisor is deceived as to the nature of his act, and actually does not know what he is signing**, or does not intend to enter into a contract at all, mutual assent is lacking, and it is *void*. In such a case it may be disregarded without the necessity of rescission.[427]

218. Complainants allege that Shell's manipulation in its Spot Market sales to CDWR during the Negotiation Period at the same time that Shell was negotiating the Shell Contract constitutes "unfaithfulness to duty" amounting to bad faith.[428] They claim that Shell's behavior also demonstrates, consistent with unconscionability, that as of May 24,

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[425] *Kinney v. United HealthCare Services, Inc.*, 83 Cal. Rptr. 2d 348, 352-353 (Ct. App. 1999); CAL. CIV. CODE §1670.5 (West 2015).

[426] *Rich & Whillock, Inc. v. Ashton Dev., Inc.*, 157 Cal. App. 3d 1154, 1158 (Ct. App. 1984).

[427] *Ford v. Shearson Lehman Am. Express, Inc.*, 180 Cal. App. 3d 1011, 1028, 225 Cal. Rptr. 895, 904 (Ct. App. 1986) (citations omitted; nonsubstantive punctuation omitted; emphasis in bold added; all other emphasis in original).

[428] Complainants Post-hearing Initial Br. at 44-45.

2001, with summer rapidly approaching, there was an absence of meaningful choice for CDWR and that Shell obtained unreasonably favorable terms. [429] Furthermore, Complainants maintain that Shell's manipulation constituted a "wrongful act" of duress that was "sufficiently coercive" to cause "a reasonably prudent person faced with no reasonable alternative to succumb to the perpetrator's pressure," thus accounting for CDWR's capitulation to the terms that Shell demanded.[430]

219. There is insufficient evidence of unconscionability here. Under California law, unconscionability "focuses on factors of oppression and surprise. The oppression component arises from an inequality of bargaining power of the parties to the contract and an absence of real negotiation or a meaningful choice on the part of the weaker party." [431] As discussed earlier, both Shell and CDWR exhibited relatively equal bargaining power during negotiations for the long-term contract.[432]

220. As to duress, CDWR did not typify an entity devoid of alternatives and cowed by a seller's demands. Rather, CDWR received many bids that it did not choose to pursue because it deemed them unfavorable, mostly for economic reasons.[433] CDWR turned down offers from large energy suppliers in the region, including Dynegy, PG&E, Williams Power, and LADWP.[434]

221. Despite the high prices that these sellers demanded, CDWR was able to assemble a portfolio of contracts at prices that met its $70/MWh target average price[435] and reduced the Net Short that it inherited from the IOUs from about 40 percent during the

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[429] *Id*. at 45.

[430] *Id*. at 45.

[431] *Kinney v. United HealthCare Services, Inc.*, 83 Cal. Rptr. 2d 348, 353 (Ct. App. 1999).

[432] Tr. 182:2-7, 209:4-214:22 (Nichols Cross); Ex. MSC-17 at 3; Ex. S-100R at 42:17-43:17 (Poffenberger Answering); Ex. S-105 at 3.

[433] Tr. 227:18–231:3 (Nichols); 459:1–12 (Hart).

[434] Ex. COR-24; Ex. COR-42; Tr. 228:8–231:3, 232:13–20 (Nichols); 459:1–15 (Hart).

[435] Tr. 235:26-236:9 (Nichols); Tr. 393:18-22; Tr. 489:16-20 (Hart).

Crisis[436] to about 33 percent by July 2001.[437] By late May 2001, before the Shell contract was signed, Hart of CDWR was able to record on tape:

> … [W]e are no longer in the position of duress; we're in a position of strength. And that while we will honor all the contracts we've entered, we certainly do not intend to enter into any more that have provisions in them that we do not find favorable. So hopefully we can make that stick.[438]

222. A post-Crisis CDWR internal memo regarding contract offers that CDWR rejected provides some insight into the strength of CDWR's negotiating freedom. Veronica Hicks, the CDWR employee who prepared the memo, pointed out that at one point during contract negotiations, "[o]ne of the last 'Letter[s] of Intent' was signed after a compilation of five 'deals' were evaluated and the Contracts Committee chose the best offer. In this case, the four other Sellers were informed that their offers were not accepted and the negotiations were terminated."[439] These outcomes do not portray a CDWR victimized by duress in its negotiations for long-term contracts, from Shell or any other power marketer.

223. Regarding bad faith, the two Administrative Law Judges who reviewed the facts in the *Puget Sound Energy* case found Shell to have acted in bad faith in its dealings in the Pacific Northwest spot market, a charge that Shell failed to rebut in that case.[440] Those findings were made according to Utah law, which applied to the contracts at issue in that case.[441]

224. Judge McCartney, in her Initial Decision in *Puget Sound Energy*, found that Shell had exploited CDWR by charging spot market bilateral contract prices that were far

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[436] Ex. CAL-210 at 8:8-12 (Hart Direct).

[437] Tr. 500:16-501:7 (Hart); Ex. IB-266.

[438] Ex. SNA-219 at 42:3-7 (Brown Answering); Ex. SNA-223 at 3.

[439] Ex. COR-42 at 2.

[440] *Puget Sound Energy v. All Jurisd. Sellers*, 146 FERC ¶ 63,028, at PP 3, 1415-1422 (2014) (Initial Decision, McCartney, J.); 154 FERC ¶ 63,004, at PP 3.c, 34-63 (2016) (Revised Partial Initial Decision) (Baten, J.).

[441] *Puget Sound Energy v. All Jurisd. Sellers*, 146 FERC ¶ 63,028, at PP 979, 1419 (2014) (Initial Decision) (McCartney, J.); 154 FERC ¶ 63,004, at P 40 (2016) (Revised Partial Initial Decision) (Baten, J.).

above the competitive market level and well above the prices that Shell charged other buyers, because Shell knew that CDWR lacked reasonable alternatives. [442] Also, Judge McCartney found that Shell had engaged in deceptive false export activity in connection with those contracts, without a legitimate business reason. [443]

225. Judge Baten, in his Partial Initial Decision in the remand of *Puget Sound Energy* that modified some of Judge McCartney's earlier findings, reiterated that Shell's false exports constituted bad faith. [444] He further found that Shell had engaged in a coordinated trading strategy of misrepresenting its sources of energy in order to obtain higher contract prices, thus taking advantage of CDWR during contract formation. [445] He found several Shell practices to be deceptive and discriminatory. [446]

226. In contrast to the evidence adduced in connection with the spot market bilateral contracts in the Pacific Northwest market, Complainants here did not conduct any factual inquiry, either directly or by circumstantial evidence, into the "subjective state of mind" of any Shell employee who was engaged in negotiating the long-term contract with CDWR to demonstrate Shell's alleged bad faith.[447] The hearing testimony of Edward Brown, Shell's negotiator, reveals no such motivation.[448] Indeed, when Nichols, a CDWR negotiator, was asked during his own cross-examination at the hearing whether he had ever observed Shell's representatives act deceptively during the long-term contract negotiations, he answered, "Not personally."[449]

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[442] *Puget Sound Energy v. All Jurisd. Sellers*, 146 FERC ¶ 63,028, at P 1416 (2014) (Initial Decision) (McCartney, J.).

[443] *Id.* P 1418.

[444] *Puget Sound Energy v. All Jurisd. Sellers*, 154 FERC ¶ 63,004, at PP 47-48 (2016) (Revised Partial Initial Decision) (Baten, J.).

[445] *Id.* P 48 (2016).

[446] *Id.* PP 47-58.

[447] *Alpha Mech., Heating & Air Conditioning, Inc. v. Travelers Cas. & Sur. Co. of Am.*, 35 Cal. Rptr. 3d 496, 512 (Ct. App. 2005).

[448] Ex. COR-1 (Brown Direct); Ex. SNA-219 (Brown Answering); Tr. 1584-1631, 1644-1733 (Brown).

[449] Tr. 297:13-17 (Nichols).

227. Last of all is the question of fraud. The record and legal briefs of Complainants are replete with allegations of fraud on Shell's part.[450] Complainants allege fraud, although their legal theory of fraud is not well-developed.[451] Under the California law of fraud in contracting set forth above, this does not appear to be a case of "fraud in the inducement" because the long-term contract between Shell and CDWR has already been carried out in full; neither party ever rescinded it. [452] If anything, the fraud allegations of this case are best evaluated in the context of California's rule of "fraud in the inception, factum, or execution."[453]

228. Under the California law of fraud in the inception of a contract, it must be determined whether CDWR was "deceived as to the nature of [its] act" of negotiating and signing the contract with Shell, such that "mutual assent [was] lacking," thereby rendering the contract void.[454] Unlike bad faith, the mistaken understanding of the defrauded party, not just the deceitful intent of the defrauder, informs the inquiry.[455] If

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[450] *See*, *e.g.*, Ex. CAL-319 at 2:17-3:1, 8:16, 10:17, 26:6, 28:1, 41:8, 57:6 (Taylor Direct); Tr. 1738:5-1739:8 (Pirrong); Complainants Pre-hearing Br. at 35, 42, 44; Complainants Post-hearing Initial Br. at 15, 22, 23, 29; Complainants Post-hearing Reply Br. at 16, 17, 22.

[451] Tr. 2641:1-2642:3 (McKeon Closing Arg.) ("PRESIDING JUDGE: But if I find, for some technical reason, that there was no bad faith here, are you still alleging fraud? MR. MCKEON: Yes.").

[452] *Ford v. Shearson Lehman Am. Express, Inc.*, 180 Cal. App. 3d 1011, 1028, 225 Cal. Rptr. 895, 904 (Ct. App. 1986).

[453] *See, e.g.*, *Day v. McDonough*, 547 U.S. 198, 209 (2006) (district courts are permitted, but not obliged, to consider, *sua sponte,* the timeliness of a state prisoner's habeas petition, provided court accords parties fair notice and an opportunity to present their positions); *Worley v. Islamic Republic of Iran*, 75 F. Supp. 3d 311, 330 (D.D.C. 2014) (noting with approval district judge's *sua sponte* consideration of statute of limitations even though the defendant did not appear to raise the issue); *Blumberg Associates Worldwide, Inc. v. Brown and Brown of Conn, Inc.*, 311 Conn. 123, 145, 84 A.3d 840, 857 (2014) ("Because judges continue to see their role as doing justice in the tradition of equity (or at least avoiding miscarriages of justice), courts frequently refuse to apply the waiver rule and instead raise issues *sua sponte* to avoid an unjust result." (quotation marks and footnote omitted)).

[454] *Ford v. Shearson Lehman Am. Express, Inc.*, 180 Cal. App. 3d 1011, 1028, 225 Cal. Rptr. 895, 904 (Ct. App. 1986).

[455] *Bonacci v. Massachusetts Bonding & Ins. Co.*, 58 Cal. App. 2d 657, 664, 137

(continued ...)

fraud in the inception is found, then the *Mobile-Sierra-Morgan Stanley* presumption is avoided.[456]

229. The defrauder's actions in the formation of a contract are specified by section 1572 of the California Civil Code as "any of the following acts, committed by a party to the contract, or with his connivance, with intent to deceive another party thereto, or to induce him to enter into the contract:

> "1. The suggestion, as a fact, of that which is not true, by one who does not believe it to be true;
> "2. The positive assertion, in a manner not warranted by the information of the person making it, of that which is not true, though he believes it to be true;
> "3. The suppression of that which is true, by one having knowledge or belief of the fact;
> "4. A promise made without any intention of performing it; or,
> "5. Any other act fitted to deceive."[457]

230. Shell's assertions to CDWR falling within this statutory definition occurred after CDWR rejected Shell's February 26, 2001 offer. As a result of CDWR's demand for Shell to purchase power for CDWR beginning in April 2001 and throughout the summer, Shell demanded a price increase for 2001 through 2003 deliveries from $93.95/MWh to $169/MWh.[458] Shell demanded in the April 6, 2001 LOI a fallback power price, in case the long term deal was not signed by April 30, in the amount of $260/MWh. [459] This

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P.2d 487, 491 (Ct. App. 1943) ("In this case the fraud was not in securing the respondent's signature to a document the nature of which was known to him, but in misrepresenting the nature of the document. [Respondent] testified, and the trial court found, that he believed, because of appellant's fraud, that he was signing a mere receipt. … In the case of fraud in the inception (which is the present case) the writing is void ab initio, and need not be formally rescinded as a prerequisite to a right of avoidance.").

[456] *Morgan Stanley*, 554 U.S. at 557 ("FERC has ample authority to set aside a contract where there is unfair dealing at the contract formation stage—for instance, if it finds traditional grounds for the abrogation of the contract such as fraud or duress.").

[457] CAL. CIV. CODE § 1572 (West 2016); *cited in Dumas v. First N. Bank*, No. CIV. S-10-1523 LKK, 2011 WL 4906412, at *3-4 (E.D. Cal. Oct. 14, 2011).

[458] Ex. CAL-200 at 17:5-9 (Nichols Direct); Ex. COR-14.

[459] Ex. CAL-200 at 19:1-9 (Nichols Direct); Ex. COR-16.

fallback price was increased to $315/MWh when the LOI was extended to May 31, 2001.[460]

231. Shell's demand for these prices, made at a time when the spot price for April and May 2001 deliveries hovered near $300/MWh,[461] was based on an untrue assertion of fact that Shell made to CDWR – that Shell was being "forced" to purchase power for CDWR in these months "at a loss."[462] By making this assertion, Shell impelled CDWR to take steps that would make Shell whole for the "loss." Shell's witness, Brown, put Shell's stance this way:

> Q: And what happened to the deliveries that were supposed to start in April?
>
> A: Prior to April, as the LOI was being negotiated, it became apparent that neither the LOI nor the final contract would be signed prior to April 1. Coral and CDWR agreed to continue negotiations, while treating the April deliveries separately. Coral held its April price at $169/MWh, *far below the prevailing forward market price for April of $260-290/MWh*. Coral's losses on these sales were to be made up in future periods under the long-term agreement.
>
> Q: Was CDWR aware that Coral was supplying from the market at a loss?
>
> A: *Yes. CDWR was fully aware* and we were able to reach agreement on a price adjustment in the event the long-term contract was not completed. Coral and CDWR agreed that the price for these April deliveries would change from $169/MWh to $260/MWh. *The $260/MWh price was an agreed upon forward market price that Coral would be paid in the event the long-term contract was not signed in order to negate the $3.6 million in losses associated with the below market sales for April*.[463]

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[460] Ex. CAL-200 at 20:3-9 (Nichols Direct); Ex. SNA-219 at 20:17-20 (Brown Answering).

[461] Ex. CAL-604 at 25, fig.5 (Goldberg Direct).

[462] Ex. SNA-219 at 18:5-21, 21:3-17 (Brown Answering); Tr. 2734:25-2739:3 (Watkiss Closing Arg.).

[463] Ex. SNA-219 at 18:5-21 (Brown Answering) (emphasis added).

232. Shell maintained this assertion when, upon being "forced" to make May deliveries of power to CDWR in addition to April deliveries as talks dragged on, the LOI was further extended to May 31:

> The deliveries for May would be handled separately, holding the price at $169/MWh, with a fallback price of $315/MWh. The $315/MWh price was an agreed upon forward market price that [Shell] would be paid in the event the long-term contract was not signed *in order to negate the $6.1 million in anticipated losses associated with the below market sales for May*.[464]

233. CDWR thought that it was striking a "favorable deal" for itself. CDWR's Deputy Director, Raymond Hart, stated in taped comments on May 23, 2001:

> And today I finished negotiations with [Shell] for about 300 [megawatts] this year and increasing amounts in future years. Might be wrong. Might be 150 this year. I'll have to check that. But anyway, pretty favorable deal.[465]

234. And again on May 24, 2001, Hart made the following taped comment:

> But [Shell], I was gonna sign it today. She said don't sign it. And I says, well, it's a good deal.[466]

235. CDWR was unaware of the extent to which Shell, Enron, and other traders were using the manipulative strategies already described here in their dealings in the California spot markets while CDWR's negotiations with Shell were being conducted.[467] As CDWR's witness, Nichols, testified:

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[464] *Id*. at 20:20-21:2.

[465] *Id*. at 48:17-20.

[466] *Id*. at 48:24-25.

[467] Ex. CAL-200 at 29:7-12 (Nichols Direct); Ex. CAL-680 at 14:5-14 (McIntosh Rebuttal) ("I strongly suspected that sellers, particularly Enron, were playing unlawful games in the Spot Market in 2000 and 2001. However, it was not until after the Crisis, including through recent revelations, that I learned how widespread the wrongful practices were or the specific nature of such practices.").

> NCI and CDWR personnel suspected that sellers were withholding supply. But the long term contracting team had no awareness at the time of all of the various price-raising market manipulation schemes by Shell and other sellers in the Spot Market that came to light after the infamous Enron Memos surfaced, and after the California Parties discovered, and introduced in other FERC proceedings, additional evidence of such schemes. [468]

236. The Enron memos that detailed the strategies did not come to light until May 2002,[469] after Enron went bankrupt[470] and well after the Shell-CDWR contract was signed.

237. During negotiations, the Shell personnel who were negotiating the long term contract with CDWR enlisted the help of Shell's spot market traders who were engaged in unlawful, manipulative activities to find power for CDWR's summer needs.[471] Shell's negotiator, Arlin Travis, e-mailed Shell's spot market trader, Hank Harris, that CDWR "is looking for power for April, May, June. Anything you can do, even if we only make a buck or two would be good for getting the larger deal done."[472] Harris replied, "We'll look to throw them April through June power, if we find it."[473] The impression is inescapable that Shell's negotiating team would have been willing to sell summer power to CDWR at a discount in order to close the deal, but Shell's traders would not have complied without being fully compensated at the spot market rates that they were used to getting.

238. Shell's spot market traders and long term contract negotiators were well aware of the profitable outcomes of their spot market sales from employing these strategies.[474]

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[468] Ex. CAL-200 at 29:7-12 (Nichols Direct) (citation omitted).

[469] Ex. CAL-291 at 209 (FERC Staff, *Final Report on Price Manipulation in Western Markets*, Docket No. PA02-2-000 (March 2003)).

[470] *See Public Utilities Com'n of State of Cal. v. FERC*, 462 F.3d 1027, 1044 (9th Cir. 2006) (Enron filed for bankruptcy on December 2, 2001).

[471] Tr. 1663:25-1667:2 (Brown); Ex. CAL-204.

[472] Ex. CAL-204; Tr. 2738:3-6 (Watkiss Closing Arg.).

[473] Tr. 1666:11-14 (Brown); Ex. CAL-204.

[474] Ex. CAL-717 at 57:23-28 (Taylor Rebuttal) (December 7, 2000 e-mails and telephone conversations show "that Ms. Bowman and Mr. Turrent, who were later involved with the long-term-contract negotiations, were fully apprised of the *(continued ...)*

The audio tape recordings and e-mails of Shell trader conversations that have been admitted in evidence are replete with references to the traders' knowledge of unlawful activities and how profitable they were.[475] Beth Bowman, the head of Shell's trading office that negotiated the CDWR-Shell contract and conducted Shell's spot market trades, was aware of these activities.[476]

239. It strains credulity to accept that Shell was forced to purchase power for CDWR "at a loss" to itself of approximately $10 million in April and May 2001,[477] when in fact Shell's traders were simultaneously puffing up spot prices that they were charging to CDWR with fraudulent trading schemes. Shell's Margin Reports to the WSPP show that Shell profited from its combined spot and LOI sales by nearly $1 million in April and May 2001.[478] Moreover, when Shell reported the financial results of its California energy trading office to its corporate parent, it stated that "US power margins generated US$20 million in January [2001], compared to a plan of US$2.2 million, reflecting the positive margins generated from West Coast real-time power trading (positive US$19.0 million)."[479] In other words, in the month of January 2001 alone, Shell's spot market traders made over *nine times* the amount of profit that Shell expected to make in that month and double the purported $10 million "loss" it told CDWR that it would take – thanks in part to its unlawful trading activity.[480]

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manipulative schemes of Shell's Real Time traders and the profits that Shell was reaping from those activities."); Exs. CAL-727, CAL-543A, B.

[475] Ex. CAL-423B at 2:21-5:4 ("Well. Yeah, that… (laughs) It wouldn't be done if there wasn't money involved"); Ex. CAL-328 at 9:12-11:4 ("It's candy from a baby"); Ex. CAL-363 ("I am pretty sure there is a reserved parking space in Hell waiting for me"); Ex. CAL-340-B at 9:2-7 ("TRAVIS: I don't know how honest that is, but, we're not in the honesty game are we? ROY: We're in optimizing. It's not a question of honesty. TRAVIS: Yeah. ROY: It's a question of optimization").

[476] Tr. 1517:18-24, 1523:22-1524:5 (Bowman Cross); Ex. CAL-322 at 2.

[477] Ex. COR-1 at 36:6-12 (Brown Answering), Ex. SNA-219 at 18:5-21, 20:20-21:2 (Brown Answering).

[478] Ex. CAL-717 at 132:13-133:2 (Taylor Rebuttal); Ex. CAL-313 at 71-74, 95-99.

[479] Ex. CAL-461 at 4; Tr. 1679:11-1680:16 (Brown Cross).

[480] Tr. 1680:9-13 (Brown Cross).

240. The prices that Shell and CDWR settled upon in May 2001 were far above the "benchmark" price of $74/MWh that the Commission ruled in December 2000 was a just and reasonable target price for long-term contracts to have in order to solve the Crisis.[481] It was well over CDWR's own target average price of $70/MWh that it had set for all of its long term contracts.[482] Shell's assertion that accepting $169/MWh and more would place it in a "loss" position, virtually shaming CDWR into naming that price, was an exaggeration on which CDWR relied to its detriment.

241. Given the requirement that a direct causal relationship must be shown between unlawful activity and contract negotiations, [483] it is important to note that Shell's manipulation of *spot* prices *directly* caused this fraud in the formation of the Shell-CDWR long term contract. Shell's purported "losses" that it insisted CDWR must make up through an inflation of long-term contract prices stemmed directly from the puffed-up spot market price levels that Shell's own traders had a hand in churning by manipulative means and strategies. Shell goaded CDWR into offering Shell exorbitant prices for power during 2001 through 2003 by falsely claiming that it would suffer losses. CDWR did not know, but Shell knew, that these prices were the product of Shell's manipulation in the spot market.

242. In its defense, Shell claims that "Complainants do not allege that [Shell] misled them, withheld information, or otherwise was anything other than forthright with them in contract negotiations or otherwise."[484] This assertion is incorrect. Complainants allege that Shell's unlawful activities in the spot market, unknown to CDWR at the time of negotiations, misled CDWR in its decision to execute the Shell Contract.[485] No matter

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[481] *SDG&E v. Sellers*, 93 FERC ¶ 61,294, at 61,994-95 (2000) ("[I]t is our view that five-year contracts for supply around-the-clock executed at or below $74/MWh can be deemed prudent.").

[482] Ex. CAL-200 at 6:17-7:2 (Nichols Direct).

[483] *CPUC v. Sellers of Long-Term Contracts*, 150 FERC ¶ 61,079, at P 12 n.17 (2015) (Clarifying Order); *accord*, 149 FERC ¶ 61,127, at P 25 (2014) (Order on Remand); *see also Morgan Stanley*, 554 U.S. at 554 ("[U]nlawful market activity that directly affects contract negotiations eliminates the premise on which the *Mobile–Sierra* presumption rests: that the contract rates are the product of fair, arms-length negotiations.").

[484] Shell Prehearing. Br. at 22; Shell Post-hearing Initial Br. at 21.

[485] *See* Complainants Post-hearing Reply Br. at 19-20 ("The evidence is clear and compelling that Shell engaged in electricity market manipulation throughout the Crisis, including throughout the Negotiation Period, that increased spot prices in the ISO and PX *(continued ...)*

how hard they tried on cross-examination at the hearing, Shell's counsel could not get CDWR's witnesses Nichols and Hart, who took part in the contract negotiations, to admit that Shell did not deceive Complainants.[486] It would be naïve to read Complainants' case for abrogating the contract as anything other than a condemnation of Shell for hiding its price-inflating subterfuges under a ruse of "financial loss."

243. The California courts have held that "[i]f a misrepresentation as to the character or essential terms of a proposed contract induces conduct that appears to be a manifestation of assent by one who neither knows nor has a reasonable opportunity to know of the character or essential terms of the proposed contract, his conduct is not effective as a manifestation of assent."[487] Thus, neither CDWR's signing of the Shell contract nor the laudatory statements about the deal by CDWR and California officials[488] signify CDWR's assent to the contract, when all were made by CDWR without knowing about Shell's fraudulent activities in the CalPX and CAISO markets. The contract is void as a matter of California law.

244. Accordingly, the preponderance of the evidence demonstrates that the presumption of justness and reasonableness that is normally attributed to bilateral agreements under the *Mobile-Sierra-Morgan Stanley* Rule is avoided in the case of the CDWR-Shell contract because it is void for fraud in its formation.[489]

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and then in sales to CDWR. All the while, Shell was across the table from CDWR offering a way out through a long-term contract that CDWR never would have needed or entered into but for the extreme direct and indirect pressure Shell's manipulative conduct exerted on CDWR.").

[486] Tr. 297:13-299:11 (Nichols); Tr. 428:5–431:14 (Hart) ("Q: Now, you're not aware of anyone from Coral during the negotiation of the contract lying to CDWR; isn't that true? A: How would I know if they are lying? Q: You know what a lie is? A: Yeah, once it's been exposed, but I don't know at the time if they're lying to me or not. Q: At the time when you were negotiating the contract, you didn't believe anyone was lying to you or trying to mislead you, did you? A: I had no reason to believe so.").

[487] *Rosenthal v. Great W. Fin. Sec. Corp.*, 14 Cal. 4th 394, 420, 926 P.2d 1061, 1076-77 (1996) (emphasis omitted).

[488] *See* Ex. SNA-219 at 47:1-48:32 (Brown Answering).

[489] Of course, beyond the *Mobile-Sierra-Morgan Stanley* presumption that is the focus of this Initial Decision, it should be the case that a void contract cannot pass a presumption-free test of "justness and reasonableness" either.

2. Iberdrola Contract

245. Unlike Shell, the Commission has never ruled that Iberdrola engaged in unlawful trading activity during the Western Energy Crisis. Iberdrola has participated in only two Western Energy Crisis cases before the Commission – Docket No. EL03-197-000 and this case – from which it was dismissed in both instances.[490]

246. Iberdrola's predecessor, PacifiCorp Power Marketing, Inc., was incorporated in 1995 as a subsidiary of PacifiCorp.[491] In 1999, PacifiCorp was acquired by Scottish Power PLC.[492] PacifiCorp Power Marketing, Inc. was transferred in 2001 to PacifiCorp Holdings, Inc., another subsidiary of Scottish Power, in a corporate reorganization.[493] In 2003, it changed its name to PPM Energy, Inc.[494]

247. In 2005, PacifiCorp was sold to MidAmerican Energy while PPM remained a part of Scottish Power.[495] In 2007, Scottish Power, including PPM, was acquired by Iberdrola, S.A.[496] References here to "PacifiCorp Power Marketing," "PPM," and "Iberdrola" are used interchangeably to refer to the power marketing entity.

248. Complainants refer in many instances to "Iberdrola's parent, PacifiCorp," as if PacifiCorp was some kind of separate player from Iberdrola during the events in question.[497] However, the evidence of record suggests that PacifiCorp's energy trading activities were the work of a single entity within the PacifiCorp organization. PacifiCorp Power Marketing, Inc. is the only PacifiCorp entity that was originally named in this case and subsequently dismissed from it by the Commission.[498] There is evidence in the

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[490] *Colorado River Comm'n of Nev.*, 106 FERC ¶ 61,022, at P 37 (2004); *CPUC v. Sellers of Long-Term Contracts*, 99 FERC ¶ 61,087, at 61,383 (2002).

[491] Ex. CAL-285 at 4 n.3 (Taylor Direct).

[492] *Id*.

[493] *PacifiCorp,* 95 FERC ¶ 61,417 (2001).

[494] Ex. IB-211 at 1:13-14 (Hudgens Answering); Ex. CAL-300.

[495] Ex. IB-200 at 14:16 (Harlan Answering).

[496] Ex. IB-200 at 1:8-9 (Harlan Answering); Tr. 2339:6-8 (Hudgens).

[497] *See*, *e.g.*, Ex. CAL-319 at 6 n.16, 11:8, (Taylor Direct).

[498] *CPUC v. Sellers of Long-Term Contracts*, 99 FERC ¶ 61,087, at 61,386 (2002) (App. B).

record that one working group within PacifiCorp worked on power purchasing and selling on behalf of the PacifiCorp public utility on the one hand, while another working group within PacifiCorp worked on power marketing with third parties.[499] Both groups shared many organizational activities.[500]

249. There is no reason to doubt, as a result, that all activities that were allegedly performed by PacifiCorp are attributable to the PacifiCorp power marketing entity now known as Iberdrola. In describing these activities, the names "PacifiCorp" and "Iberdrola" will be used interchangeably for the same entity unless the context requires otherwise.

a. Unlawful Spot Market Activities

250. Complainants, through the testimony of their expert witness, Gerald Taylor,[501] accuse PacifiCorp of providing "parking" service for sellers to CDWR.[502] They also accuse PacifiCorp of facilitating false exports by others by laundering energy from within California for resale to CDWR.[503]

251. According to Taylor, PacifiCorp facilitated such multi-party false exports over nearly 40 days between March 5 and May 15, 2001, and facilitated two-party false exports on another 30 days between January 26 and June 18, 2001.[504]

252. Taylor alleges that PacifiCorp provided parking service all through the Western Energy Crisis to Enron, Powerex, and Shell, as evidenced by transcripts of recorded

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[499] Ex. IB-200 at 14:3-7, 11-22 (Harlan Answering); Ex. IB-211 at 3:4-10:2 (Hudgens Answering).

[500] *See*, *e.g.*, Ex. CAL-319 at 160:12-163:13 (Taylor Direct).

[501] Exs. CAL-285 & CAL-319 (Taylor Direct).

[502] Ex. CAL-285 at 43:6-7, 50:11-12 (Taylor Direct); Complainants Post-hearing Initial Br. at 47-51; Complainants Post-hearing Reply Br. at 24-29.

[503] Ex. CAL-285 at 81:13-17; Ex. CAL-319 at 153:8-9 (Taylor Direct); Complainants Post-hearing Initial Br. at 47-51; Complainants Post-hearing Reply Br. at 24-29.

[504] Ex. CAL-319 at 156:15-157:3 (Taylor Direct); Ex. CAL-489 (CAL-489_PAC_Multiparty False Exp.xls).

telephone conversations with PacifiCorp traders and responses to data requests from the Commission.[505]

253. Taylor asserts that transactions in which PacifiCorp knowingly laundered energy out of California for resale in Real Time to the CAISO or to CDWR were fraudulent, and thus, were a violation of PacifiCorp's market-based rate authorization.[506]

254. Taylor is unwilling to say whether Iberdrola contributed to or was involved in illegal activity similar to PacifiCorp because, in his view, critical evidence necessary to answer this question is missing – Iberdrola claims to be unable to locate any of its audio recordings of trader telephone conversations and therefore has produced none in discovery.[507] According to Taylor:

> We know that energy often passed through several entities on its way to CDWR, so it is entirely possible that energy sold by Iberdrola was bound for CDWR and the [CA]ISO. It is my experience after listening to thousands of trader audio recordings representing many of the companies involved in trading activity during the Crisis, that traders often discussed among themselves the strategies that were being employed by them or others to manipulate markets during this period. Thus, the missing recordings could have shed light on Iberdrola's knowledge and participation in fraudulent activities if it was engaged or had knowledge of such activities, as well as the impacts of its or PacifiCorp's activities on the long-term contract negotiations, and the relationship between PacifiCorp and Iberdrola traders and contract negotiators during the Negotiation Period. The failure by Iberdrola to find and produce these recordings in this proceeding has left an evidentiary hole that cannot be filled by any other evidence.[508]

255. Complainants filed a motion against Iberdrola to compel production of the audiotapes and for sanctions in view of Iberdrola's loss of those tapes, despite their acknowledged existence at one time and a litigation hold on them against evidentiary

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[505] Ex. CAL-319 at 158:1-7 (Taylor Direct); Ex. CAL-406 at 24-26 (admission in data request that "PacifiCorp was an intermediary in 'Ricochet' transactions with Enron.").

[506] Ex. CAL-319 at 160:17-161:3 (Taylor Direct).

[507] *Id*. at 164:15-165:2.

[508] *Id*. at 167:5-19.

spoliation. The motion was granted and a sanction was imposed on Iberdrola in the form of an adverse factual inference. Specifically, it is deemed to be a fact that PacifiCorp's unlawful activities in the spot market during the Crisis Period, such as parking and megawatt-laundering, are attributable to Iberdrola.[509]

256. Iberdrola argues that simultaneous buy-resell arrangements, also known as parking arrangements, are not unlawful.[510] It touts Complainants' witness Taylor's acknowledgment during cross examination that "I don't think parking, per se is necessarily a violation unless it's used to disguise the source of the energy," and his affirmance of a suggestion of the cross-examining attorney that "parking in and of itself without something more doesn't constitute evidence of market manipulation."[511]

257. Taylor's statements, however, do not support Iberdrola's claim that parking is inherently lawful activity. They include an express exception that encompasses the very behavior that PacifiCorp (and, by sanction, Iberdrola) has been accused of committing – parking for the purpose of disguising the source of energy as OOM rather than in-CAISO energy.

258. Iberdrola also cites a 2015 Commission decision in *Puget Sound Energy, Inc.*, for its contention that parking is lawful. [512] In that case, the Commission decided that it "will not permit the marketing function of a transmission provider to engage in simultaneous exchanges involving that transmission provider's system absent prior Commission authorization *as evaluated on a case-by-case basis*."[513]

259. *Puget Sound Energy, Inc.*, concerned the Commission's longstanding policy against buy/sell agreements, also known as simultaneous exchanges, by the marketing arm of a transmission provider that utilized the transmission provider's own transmission system. The Commission approves such transactions only if certain Commission

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[509] *Order Memorializing November 10, 2015 Bench Ruling on Motion to Compel Production of Audio Recordings and Request for Sanctions*, at P 11 (November 13, 2015).

[510] Iberdrola Post-hearing Initial Br. at 24-25; Iberdrola Post-hearing Reply Br. at 14-15.

[511] Tr. 1419:9-20 (Taylor).

[512] *Puget Sound Energy, Inc.*, 153 FERC ¶ 61,131 (2015).

[513] *Puget Sound Energy, Inc.*, 153 FERC ¶ 61,131 at P 18 & n.37 (2015) (emphasis in original).

concerns are met regarding the use of such transactions to circumvent transmission service regulation.[514] As to all other simultaneous exchange transactions, the Commission acknowledged that its prior approval is not required.[515]

260. *Puget Sound Energy, Inc.* has nothing to do with "unlawful activities" that are the subject of the California Energy Crisis cases. Those are defined as "market practices and behaviors [that] constitute a violation of the then-current CAISO and CalPX and individual seller's tariffs, as well as Commission orders."[516] PacifiCorp's parking and false export activities are accused of violating these rules, but there is no evidence that they run afoul of the Commission's concern about the use of a transmission provider's own system for simultaneous exchanges transacted by its own marketing arm as opposed to the use of other systems. The identity of the owner of the transmission system used by a parking arrangement simply makes no difference to the issue addressed here. Consequently, *Puget Sound Energy, Inc.* does not support Iberdrola's claim that parking was lawful.

261. Iberdrola's economics expert witness, A. Joseph Cavicchi, challenges Taylor's testimony for conflating Iberdrola with PacifiCorp "without any valid evidence that the two companies operated as one."[517] He characterizes Iberdrola as only a minor player in the California spot market, controlling only 1 MW of wind generation capacity during the Crisis Period and selling only 0.29-0.72% of the megawatt-hours sold in Western spot markets between February and June 2001.[518] Iberdrola notes that it did not transact with CDWR until July 2001.[519]

262. In addition to the evidentiary sanction, there is ample evidence *from Iberdrola itself* that Iberdrola and PacifiCorp operated as one entity during the Crisis Period. Iberdrola's president and chief executive officer from May 2001 through November 2008, Terry Hudgens, served previously for PacifiCorp as Senior Vice President for

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[514] *Id.* P 3.

[515] *Id.* P 4.

[516] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 24 (2014) (Order on Remand) (c*iting SDG&E v. Sellers*, 135 FERC ¶ 61,183, at P 31 (2011)).

[517] Ex. IB-222 at 15:19-16:2 (Cavicchi Answering).

[518] *Id*. at 4:1-9, 17:1-12.

[519] Iberdrola Pre-hearing Br. at 11.

Power Supply.[520] Hudgens testifies that "certain corporate functions were shared" between PacifiCorp and PacifiCorp Power Marketing.[521] Although PacifiCorp Power Marketing's offices were located several blocks away from the PacifiCorp offices and its employees' badges were locked out from accessing the latter's power trading floor,[522] both entities shared a single U.S. chief risk officer and shared mid-office personnel.[523] The chief financial officers of PacifiCorp and Scottish Power had access to the accounting personnel of both entities.[524]

263. Among the corporate functions that PacifiCorp and PacifiCorp Power Marketing shared were legal, credit, human resources, public relations, risk management, and information technology.[525] John Fryer of PacifiCorp's credit department participated in analyzing the credit issues that arose between CDWR and PacifiCorp Power Marketing during the contract negotiations.[526] Even PacifiCorp Power Marketing's now-missing tapes of conversations between its traders and counterparties in the California spot market during the Crisis period were routed through PacifiCorp's legal department when a legal hold was placed on them pursuant to the advent of litigation in this case.[527]

264. Even without the evidentiary sanction, it is not credible to treat the activities of PacifiCorp and PacifiCorp Power Marketing during the Crisis as those of utterly separate entities. The actions of one are clearly attributable to the other as the actions of a single organization. Hence, as there is undisputed evidence that PacifiCorp engaged in parking activities and megawatt laundering in aid of the false export activities of other sellers, constituting unlawful activity in the California spot markets, that evidence is attributable to Iberdrola as well.

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[520] Ex. IB-211 at 1:20-21 (Hudgens Answering).

[521] *Id*. at 3:6-7.

[522] *Id*. at 3:17-20.

[523] *Id*. at 5:1, 6.

[524] *Id*. at 5:19-6:2.

[525] *Id*. at 6:8-10

[526] *Id*. at 6:11-14

[527] *See* Iberdrola Renewables, LLC's Answer to Motion to Compel Production of Audio Recordings, at 6 (Oct. 21, 2015).

b. Causal Connection of Unlawful Activities to Contract

265. Having established the existence of unlawful activities in the spot market during the Crisis Period that are attributable to Iberdrola, we turn to whether a causal connection to Iberdrola's contract negotiations with CDWR exists. Complainants assert in this regard that Iberdrola's unlawful activities in the spot market had a dysfunctional effect on that market that, in turn, had a dysfunctional effect on forward prices, and thereby induced "dysfunctional" conditions for contract negotiations in Iberdrola's favor.[528]

266. The contract between Iberdrola and CDWR was negotiated between the parties from January 24, 2001 through the day of its signing.[529] It was signed on July 6, 2001.[530]

267. The contract term ran from July 29, 2001 through June 30, 2011.[531] Iberdrola was to deliver 7x24 energy in the following amounts: from July 29, 2001 through June 30, 2002, 150 MW; from July 1, 2002 through June 30, 2004, 200 MW; from July 1, 2004 through June 30, 2011, up to 300 MW.[532]

268. For deliveries from July 2001 through December 2002, the contract price was fixed at $70/MWh.[533] For deliveries from January 1, 2003 through June 30, 2011, the price was calculated according to fixed and variable charges and a natural gas cost index, and included a tolling arrangement by which CDWR controlled the dispatch of energy from the Klamath generating plant.[534]

269. There is no previous Commission determination showing that Iberdrola's unlawful activities (which include the parking and megawatt-laundering activities of PacifiCorp that are attributable to Iberdrola) elevated prices in the CalPX and CAISO markets, as

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[528] Complainants Post-hearing Initial Br. at 54-62.

[529] Ex. CAL-604 at 5:3-6 (Goldberg Direct).

[530] Ex. CAL-200 at 23:1-2 (Nichols Direct); Ex. CAL-41 (CDWR-Iberdrola Contract).

[531] Ex. CAL-637.

[532] *Id*.

[533] Ex. CAL-604 at 4:14-15 (Goldberg Direct); Ex. CAL-637.

[534] Ex. CAL-210 at 18:10-15 (Hart Direct); Ex. CAL-604 at 4:14-5:2 (Goldberg Direct); Ex. CAL-637; Ex. IB-200 at 12:1-17 (Harlan Answering).

there is with Shell.[535] Complainants have not offered any evidence in this case to show such a nexus.[536] The price set for the initial year and a half of the Iberdrola-CDWR contract met the target average price of $70/MWh that CDWR had set as the goal for its portfolio of long-term contracts.[537]

270. Apart from Taylor's bare statement that PacifiCorp's charges for parking services affected spot market prices, he offers no evidence to back that statement up. Iberdrola, through the testimony of its expert economic witness, A. Joseph Cavicchi, draws particular attention to this absence of substantiation.[538]

271. In the absence of evidence of spot market price effects resulting from unlawful activities attributable to Iberdrola, no nexus can be established between those activities and forward prices during the Crisis Period.

272. In the absence of any nexus between unlawful activities attributable to Iberdrola and forward prices, no nexus can be established between forward prices and the contract negotiations of Iberdrola and CDWR.

273. Accordingly, Complainants have failed to carry their burden of proving that the *Mobile-Sierra Morgan Stanley* presumption of the justness and reasonableness of the CDWR-Iberdrola contract is avoided.

B. Whether the Contracts at Issue Imposed an Excessive Burden on Consumers Relative to the Rates They Could Have Obtained After Elimination of the Dysfunctional Spot Market, or Otherwise Seriously Harmed the Public Interest, Such That the *Mobile-Sierra-Morgan Stanley* Rule Is Overcome?

274. As an alternative to "avoiding" the *Mobile-Sierra-Morgan Stanley* Rule, Complainants may instead "overcome" the Rule by proving an "unequivocal public necessity" or "extraordinary circumstances" that warrant abrogating the contracts with Respondents.[539] These impacts may be shown by demonstrating that "the contracts

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[535] *SDG&E v. Sellers*, 149 FERC ¶ 61,116, at PP 57, 62, 97, 102, 120, 127, 174, and 176 (2014) (Opinion No. 536).

[536] Ex. CAL-319 at 153:3-15 (Taylor Direct).

[537] Tr. 197:4-12, 199:18-201:6 (Nichols); Tr. 489:16-20 (Hart).

[538] Ex. IB-222 at 17:13-18:4 (Cavicchi Answering); Ex. IB-228.

[539] *Morgan Stanley*, 554 U.S. at 550.

imposed an excessive burden on consumers 'down the line,' relative to the rates they could have obtained (but for the contracts) after elimination of the dysfunctional market," or otherwise seriously harmed the public interest.[540] It is unnecessary to prove any of the elements of "avoidance" – including unlawful activity or price effects – in order to set aside the *Mobile-Sierra-Morgan Stanley* presumption as having been "overcome."[541]

275. In elaborating upon this part of *Morgan Stanley*, the Commission stated that the term "down the line" means "measured based on the life of the contract," and that "[a] relevant factor in the down-the-line analysis is the cost of substitute power in the absence of the contracts." [542] An appropriate measure of the cost of substitute power, the Commission determined, "may be the actual market prices available at that time for comparable long-term contracts," together with evidence on how to account for "negotiated non-rate terms" in establishing a market price. [543]

276. In line with this guidance, the parties have introduced into evidence several different analyses that compare the payments that CDWR made to Respondents under the contracts at issue with payments for substitute power that could have been made in alternative ways. The difference between these payment levels found through each analysis is offered to show the degree to which the contracts at issue burden – or do not burden – consumers.

277. Furthermore, "[t]he impact on consumers," the Commission noted, "is a key element of this analysis." [544] In keeping with this directive, Complainants, Respondents and Staff have also introduced into evidence analyses that measure the impact (or lack thereof) that the Shell and Iberdrola contracts have had on the electric bills charged by the three California IOUs that consumers have been paying during the post-Crisis period from 2002 through 2012.

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[540] *Id*. at 552.

[541] Tr. 2759:19-2760:2 (Watkiss Closing Arg.) ("PRESIDING JUDGE: … The overcoming rule doesn't have anything to do with unlawful activity or negotiations for the contract as the avoidance rule does; is that correct? MR. WATKISS: That's my reading of Mobile-Sierra.").

[542] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 21 (2014) (Order on Remand).

[543] *Id*.

[544] *Id.* P 22.

1. Shell Contract

a. The Parties' Analyses

i. The Complainants' Analysis

278. Complainants offer the testimony of Dr. Metin Celebi, an economist, to analyze the down-the-line economic burden on California consumers caused by the Shell contract.[545] They also offer the testimony of Commissioner Michael Peter Florio, a member of the California Public Utility Commission, regarding the impact of that burden on consumer rates.[546] Further, they offer the testimony of Dr. Peter Berck, an economist, to model the impact on California's real state personal income and employment of Celebi's computation of the down-the-line consumer burden.[547]

279. Celebi compares CDWR's payments under its contract with Shell to three different alternatives: (i) actual long term contracts of one year or longer for comparable energy products delivered to the same locations that were executed by Shell and others between September 1, 2001 and December 31, 2002, a time period by which Celebi felt the dysfunctional market had subsided; (ii) post-Crisis forward market prices reported during September 2001 for comparable energy products and delivery volumes over the life of the Shell contract; and (iii) payments that would have been made over the life of the Shell contract using prices estimated by computer simulation on the basis of underlying cost elements of producing electric power as of the date that the Shell contract was executed.[548]

280. For his first analysis, Celebi examines hundreds of contracts executed by Shell and Iberdrola, long term contracts executed by the California IOUs, and contract information that was publicly available in a FERC database.[549] Although Celebi concludes that the Shell contract was "very highly priced as compared to long-term contracts executed in

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[545] Ex. CAL-634R (Celebi Direct).

[546] Ex. CAL-241 at 63:6-65:7 & tbl.5 (Florio Direct).

[547] Ex. CAL-666 (Berck Direct).

[548] Ex. CAL-634R at 3:13-5:18 (Celebi Direct).

[549] *Id*. at 17:13-19.

the September 2001-December 2002 period," Celebi does not attempt to determine a cost of substitute power based on these other post-Crisis contracts.[550]

281. In his second analysis, Celebi calculates a cost of substitute power during the term of the Shell contract on the basis of forward prices reported by major brokers during trading days in September 2001, with adjustments to account for differences in non-price terms in the CDWR contracts.[551] Forward prices from September 2001 are used to determine prices for each delivery location in each delivery month through 2005.[552] For the period 2006 through 2012, Celebi escalates the prior year's monthly post-Crisis forward market prices for the same month by the growth rate implied by natural gas price forecasts as of September 2001 at Henry Hub.[553] These calculations, according to Celebi, represent his "best estimate of the market prices that would have been available to CDWR for substitute power when the markets were no longer dysfunctional."[554]

282. Celebi's methodology estimates the total down-the-line burden on California consumers to be the difference between the total payment to Shell over the entire contract term and the total payment under post-Crisis forward market prices for the same volumes. This amount, in nominal dollars, comes to approximately $1.37 billon (*i.e.*, $2.762 billion in actual payments to Shell - $1.396 billion in forwards-based payments = $1.37 billion).[555] With FERC quarterly interest rates applied through May 2015, the amount comes to $2.14 billion.[556] Celebi's down-the-line difference between actual payments to Shell and post-Crisis forward market-based payments is depicted in the following figure:[557]

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[550] *Id*. at 24:4-11.

[551] *Id*. at 24:11-15, 25:1-36:2.

[552] *Id*. at 31:14-16.

[553] *Id*. at 34:4-8.

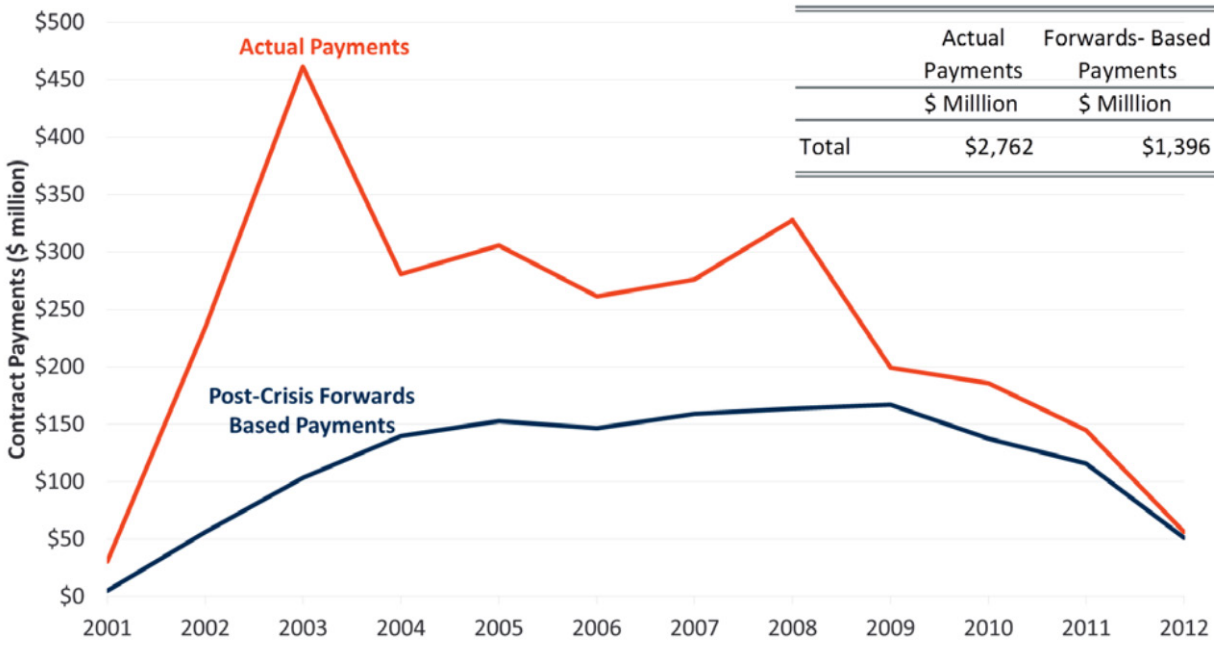
[554] *Id*. at 24:15-17.

[555] Ex. CAL-634R at 39:1-8 (Celebi Direct); Ex. CAL-668 (Shell tab).

[556] Ex. CAL-634R at 41:1-5 (Celebi Direct); Ex. CAL-668 (Shell tab).

[557] Ex. CAL-634R at 40 (fig.12) (Celebi Direct).

Actual Shell Contract Payments vs. Post-Crisis Forward Market-Based Payments (Nominal $s)



	Actual Payments $ Milllion	Forwards- Based Payments $ Milllion
Total	$2,762	$1,396

283. In his third analysis, Celebi compares the payments under the Shell contract to what payments would have been if they had been based on prices derived from the underlying cost elements of producing electric power.[558] For the years 2001-2004, Celebi estimates spot market Day Ahead prices using Day-Ahead Locational Market Clearing Prices Analyzer (DAYZER) market simulation software, which simulates short-run marginal prices expected for conditions of supply and demand as of the Shell contract execution date.[559] For the years 2005-2012, Celebi estimates prices that are consistent with long-run equilibrium conditions – that is, "long run marginal costs" (LRMC) – by projecting the costs to build and operate a new gas-fired combined-cycle plant as of the contract execution date and translating those costs into a dollar per MWh figure that is applied to each product delivered under the contract.[560]

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[558] *Id.* at 46:10-17.

[559] Ex. CAL-634R at 47:8-11, 47:16-48:4, 49:3-51:2, 51:3-54:16, 62:1-63:2 (Celebi Direct); Ex. CAL-643.

[560] Ex. CAL-634R at 47:11-15, 48:4-49:2, 63:10-71:2 (Celebi Direct); Ex. CAL-646 (at second page: "The calculation was conducted for a new gas-fired combined-cycle plant (gas CC) because a gas CC (as opposed to a simple-cycle gas turbine), would provide the products delivered under the Shell and Iberdrola Contracts at the lowest cost. A gas CT would be better suited to provide the lowest costs only during the hours with *(continued ...)*

284. Celebi finds in this analysis that Shell's contract prices were substantially higher than these "fundamentals-based" prices in the initial years of the contract, and then narrowed the gap in later years.[561] He estimates the consumer burden represented by the difference between projected payments under the Shell contract and projected payments under fundamentals-based prices to be $384.8 million ($779 million, including FERC interest to May 2015).[562]

285. Commissioner Florio extrapolates from Celebi's forward prices-based analysis a table, the Shell part of which is shown here, indicating how much in cents per kilowatt-hour California customers paid to Shell for the power that it sold to CDWR during each year of the term of the Shell-CDWR contract in excess of the rates that they would have paid for those deliveries at post-Crisis prices:[563]

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the highest load conditions.").

[561] Ex. CAL-634R at 73:3-74:3 (fig.22) (Celebi Direct).

[562] Id. at 76:1-6 & tbl.8.

[563] Ex. CAL-241 at 63:6-65:7 & tbl.5 (Shell part) (Florio Direct).

Excess Consumer Rates -- Difference Between Actual CDWR-Shell Contract Prices and Post-Crisis Forward Market Prices

	Shell Contract		
Year	actual rate (¢/kWh)	post-crisis rate (¢/kWh)	excess rate (¢/kWh)
2001 (Oct-Dec)	18.46	3.06	**15.40**
2002	16.15	3.85	**12.30**
2003	17.73	3.96	**13.76**
2004	7.89	3.93	**3.96**
2005	7.84	3.93	**3.91**
2006	7.06	3.95	**3.11**
2007	7.07	4.08	**2.99**
2008	8.37	4.17	**4.20**
2009	5.10	4.26	**0.84**
2010	5.78	4.27	**1.51**
2011	5.53	4.43	**1.10**
2012	4.52	4.10	**0.43**

286. Berck uses an econometric computer model of the California economy known as the Environmental-Dynamic Revenue Analysis Model (EDRAM), a peer-reviewed econometric model,[564] to measure the effect of Celebi's second analysis results (which Berck calls the Shell contract's "overcharges") on the sum of nominal income received by all persons in California divided by the consumer price index, a measure of "real" personal income.[565]

287. The EDRAM model starts with a baseline California economy in "general equilibrium," meaning that it accounts for all markets and all income flows at market clearing prices in all economic sectors, and thus represents all supply and demand in equilibrium.[566] Berck then introduces the impact of the contract overcharges into the model, which sets into motion a series of changes in prices and quantities within the model that work to bring the economy as simulated by the model back into equilibrium.[567] The pre-change equilibrium is then compared to the post-change

[564] Tr. 954:15-17, 955:14-23 (Berck).

[565] Ex. CAL-666 at 2:15-3:5, 9:14-10:2 (Berck Direct).

[566] *Id*. at 10:3-12.

[567] *Id*. at 10:16-19.

equilibrium to see the likely change to the economy as measured by real state personal income and employment.[568]

288. Berck runs the EDRAM model for actual conditions in years 2002, 2003, 2005, and 2011 to derive actual real state personal income and employment.[569] Berck then decreases the revenue paid to outside entities for electricity and runs the model again for each of the foregoing years, removing overcharges by (1) Shell only, (2) Iberdrola only, (3) both Shell and Iberdrola, and (4) by all suppliers including Shell and Iberdrola.[570]

289. For the Shell contract alone, Berck converts Celebi's September 2001 forwards market-based overcharge of $1.4 billion to its 2001 net present value (NPV) of $1.1 billion.[571] Berck then calculates that this overcharge reduced the present value of California's real state personal income by $3.4 billion and cost the state approximately 3,300 jobs.[572]

ii. Shell's Analysis

290. Shell offers the testimony of Dr. Scott W. Niemann, an economist, for its analysis of down-the-line consumer burden arising from the Shell contract with CDWR.[573] Shell also offers the testimony of Dr. Andrew Safir, an economist, to critique the analyses of Celebi and Berck.[574] Finally, Shell offers the testimony of Mark Fulmer, an engineer, to address the impact on consumer electric rates of the overcharges that Complainants attribute to the Shell contract.[575]

291. Niemann asserts that the long-run marginal cost of power (LRMC) is an appropriate measure of the long-run competitive price in wholesale power markets and a

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[568] *Id*. at 10:13-11:3.

[569] *Id*. at 16:18-17:1.

[570] *Id*. at 17:1-6.

[571] Ex. CAL-666 at 3:6-4:9, 5:13-15, 5:19-6:2 (Berck Direct); Ex. CAL-669 (Summary tab).

[572] Ex. CAL-666 at 6:19-7:3 (Berck Direct); Ex. CAL-669 (Summary tab).

[573] Ex. SNA-244 (Niemann Answering).

[574] Ex. SNA-240 (Safir Answering).

[575] Ex. SNA-256 (Fulmer Answering).

reasonable baseline for assessing down the line costs of long term contracts, including the Shell contract.[576] LRMC is equal to the cost of new entry (CONE) plus variable operating expenses for generation to supply the contracted deliveries.[577] This analysis, Niemann notes, is consistent with the testimony of Dr. Martin Ringo on behalf of Complainants that was provided in the original 2002 hearing in this case, which used CONE to analyze the consumer burden attributable to all of the challenged contracts.[578]

292. Niemann contends that down-the-line impacts for a long-term power sale should be measured against a reasonable estimate of the cost that a buyer could have expected to pay at the time for long term power in the absence of that sale, within a competitive market for long-term power.[579] Hence, a critical component of establishing a reasonable benchmark price, Niemann says, is ensuring that the market conditions at the time the agreement was negotiated are comparable to the market conditions underlying the benchmark pricing.[580]

293. Consequently, it is not necessary to look to a period with more "normal" market conditions to establish a pricing benchmark for contracts entered into during the Crisis Period, Niemann asserts.[581] The better approach is to use CONE, which includes both the initial capital expenditures and on-going fixed costs required to build, operate, and maintain a new power plant.[582] Market prices consistent with CONE will result in expected cash flows over the life of the asset that are sufficient to cover both the variable operating costs of the plant and CONE, thereby equaling LRMC, Niemann asserts.[583]

294. This measure of long term competitive pricing is independent of any short term market dysfunction, and therefore is not tied to any specific type of "normal" market

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[576] Ex. SNA-244 at 8:3-9 (Niemann Answering).

[577] *Id*. at 8:9-11.

[578] Ex. SNA-244 at 8:16-18 (Niemann Answering); Ex. CAL-82 (Ringo Direct).

[579] Ex. SNA-244 at 11:2-5 (Niemann Answering).

[580] *Id*. at 11:11-14.

[581] *Id*. at 11:15-19.

[582] *Id*. at 12:8-9.

[583] *Id*. at 12:18-21.

conditions, Niemann says.[584] Indeed, according to Niemann, there is no need to look to other periods outside of the Crisis Period to establish a reasonable benchmark.[585]

295. Niemann's original estimates of CONE that he submitted with his answering testimony were found after his deposition to contain errors. Consequently, he submitted errata to correct his computations.[586] In his corrected version, Niemann estimates CONE based on the installed cost, in 2001 dollars, of a merchant generator's standard 550 MW combined cycle gas turbine (CCGT) as reported by the California Energy Commission (CEC) in its 2007 report of central station electricity generation technology costs.[587] This amount in 2001 dollars is $737/kW-year.[588] This value is very close to the value used by Ringo in his 2002 testimony, and is similar to Celebi's LRMC analysis which is based on the same technology.[589] From this value and the application to it of certain financing assumptions made by the 2007 CEC report, Niemann estimates the levelized revenue that would be required to allow for recovery of capital (including the cost of debt and equity), taxes, insurance, and O&M.[590]

296. Niemann compares the present discounted value of CCGT carrying charges, as amortized over the run hours that occurred during the contract deliveries, to the present

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[584] *Id*. at 13:9-12.

[585] *Id*. at 13:20-14:3.

[586] Ex. SNA-244R (Niemann Answering Errata); Ex. SNA-248 (Niemann Second Errata); Ex. SNA-255 (Niemann Second Errata).

[587] Ex. SNA-244R at 5 (Niemann Answering Errata); Ex. SNA-247 at 40, tbl.15 (cost of a Merchant's "conventional 550 MW CC with Duct Firing").

[588] Ex. SNA-255 (Niemann Second Errata) (CCGT Capital Costs tab).

[589] Ex. SNA-244 at 20:3-5 (Niemann Answering); *see* Ex. CAL-646 (at second page: "The [Celebi] calculation was conducted for a new gas-fired combined-cycle plant (gas CC) because a gas CC (as opposed to a simple-cycle gas turbine), would provide the products delivered under the Shell and Iberdrola Contracts at the lowest cost. A gas CT would be better suited to provide the lowest costs only during the hours with the highest load conditions."); Tr. 710:2-711:17 ("[B]oth my analysis and Dr. Niemann's analysis of LRMC are using [combined-cycle generation plant technology] as the basis.").

[590] Ex. SNA-244 at 20:11-15 (Niemann Answering); Ex. SNA-255 (Niemann Second Errata) (CONE Summary tab).

discounted value of actual contract payments to Shell from CDWR.[591] Unlike Celebi's analysis, the capacity payments to Shell under the contract are not included in Niemann's stream of actual payments from CDWR.[592] Also, the "below market sales" of power that Shell made to CDWR in April and May 2001 at the contract price is treated by Niemann as a credit to Shell, and therefore the difference between the market-price value of that sale and the contract-price value is deducted from the total of all contract payments that Shell received from CDWR.[593]

297. Niemann finds that the sum of actual payments under the Shell contract between May 24, 2001 and June 30, 2012 is approximately 3.3 percent more than the LRMC pricing payments would be.[594] The present-value and undiscounted analyses are shown in the following table:[595]

	NPV	**Undiscounted**
Cost of Shell Deliveries Under Contract	$2,213,276,824	$2,772,132,062
Cost at LRMC Pricing	$2,133,580,810	$2,763,445,401
Difference:	$79,696,014	$8,686,661
Percentage Difference:	**3.7%**	**0.3%**
Less Cost of Below Market Sales	($8,779,200)	($8,779,200)
Net Difference:	$70,916,814	($92,539)
Percentage Difference:	**3.3%**	**0.0%**

298. Niemann further points out that when Complainants offered Ringo's analysis in 2002, and particular errors in his analysis of the Shell contract were discovered and corrected, Ringo testified that, "[a]ssuming the quantitative effect of those errors was as

[591] Ex. SNA-244 at 21:1-10 (Niemann Answering); Ex. SNA-244R at 6 (Niemann Answering Errata); Ex. SNA-248 (Niemann Second Errata) (CEC-Based Comparison tab).

[592] Tr. 883:1-5 (Celebi Cross).

[593] Ex. SNA-244 at 22:11-13 (Niemann Answering).

[594] Ex. SNA-244R at 6 (Niemann Answering Errata); SNA-248 (Niemann Second Errata) (CEC-Based Comparison tab).

[595] Ex. SNA-248 (Niemann Second Errata) (CEC-Based Comparison tab).

represented by the Respondents' witnesses, one could not conclude, based on my approach, that the contracts are priced above long-run competitive prices."[596]

299. Niemann contends, therefore, that the Shell contract does not impose a down-the-line burden on consumers. "The core problem" with Celebi's three approaches, Niemann opines, "is that they are untethered from the market conditions facing sellers in early 2001."[597]

300. Safir adds to Niemann's critique of Celebi.[598] Safir argues that Celebi should have made some assessment of whether the long-term contracts actually had a stabilizing influence on post-Crisis rates before assessing so-called "overcharges."[599] Celebi merely proves the obvious, Safir contends – that pricing in the post-Crisis period was much lower than the pricing faced by CDWR during the Crisis Period – and Celebi erroneously labels that difference a "burden."[600]

301. According to Safir, "the real issue is to what extent prices in the post-Crisis Period were reduced from what they otherwise would have been by virtue of the execution of the various long-term contracts, including the [Shell] Contract."[601] If these rates would have been higher as a result of some failure on the part of the market to enter into long term contracts with Shell and the other respondents, Safir notes, then Celebi's price series underestimates what prices actually would have been in the absence of the Shell contract, and his overcharge would be overstated.[602]

302. Safir also criticizes Berck's model of the impact on state personal income and employment.[603] Berck's EDRAM computation of a $3.4 billion reduction in real state personal income and decline of 3,300 jobs does not account for any benefit of the long term contracting process on down-the-line pricing, such as the construction of additional

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[596] Ex. SNA-244 at 25:17-21 (Niemann Answering) (*quoting* Ex. CAL-163 at 1-2).

[597] Ex. SNA-244 at 29:7-11 (Niemann Answering).

[598] *Id*. at 18:6-24:2.

[599] *Id*. at 20:5-8.

[600] *Id*. at 20:9-14.

[601] *Id*. at 20:17-19.

[602] *Id*. at 20:15-21:3.

[603] *Id*. at 24:3-41:14.

California power plants, which subsequently proved to be important in bringing down prices.[604] The EDRAM Model, according to Safir, is imprecise and fails to account for any structural economic changes that may arise in response to significant economic shocks such as the disruption to the California electric market.[605]

303. Safir further contends that Celebi's measure of the impact of the alleged overcharges of the Shell contract, even if accurate, is insignificant in relation to the overall amount of income or employment generated in the state.[606] The loss of income to the State of California in 2004 caused by the Shell contract overcharge, Safir says, amounted to no more than 2.9 hundredths of one percent of state personal income for that year.[607] The total job loss over the 2001 to 2012 period that Berck estimates amounted to two one-hundredths of a percent of the total job level in the state.[608]

304. Fulmer adds to Shell's deconstruction of Celebi's analyses that even if one assumes Celebi's calculations of alleged overcharges under the Shell contract to be correct, the impact still cannot be construed as an excessive burden.[609] Using Celebi's alleged overcharge values based on his forward price-based analysis, Fulmer finds on average that the Shell contract constituted only 0.49% of the average electric bill across the entire California electric system for all classes of customers during the entire term of the contract, which translates into a cost of $0.00057/kWh.[610] Fulmer considers this amount not to be an excessive burden on consumers.[611]

305. Fulmer's 0.49% calculation of the impact of the Shell contract on electric rates is derived from the amount collected by the IOUs from ratepayers to reimburse CDWR for its power purchases from Shell in the last quarter of 2001 and all of 2002. These amounts were collected by means of direct remittances from ratepayers during 2001 and 2002, and

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[604] *Id*. at 24:11-25:6, 28:3-12.

[605] *Id*. at 28:19-22, 29:12-16.

[606] *Id*. at 32:16-18.

[607] *Id*. at 32:22-33:2.

[608] *Id*. at 36:1-10.

[609] Ex. SNA-256 at 4:19-21 (Fulmer Answering).

[610] Ex. SNA-256 at 4:22-5:2, 19:8-21:13 (Fulmer Answering); Ex. SNA-260.

[611] Ex. SNA-256 at 5:2-4 (Fulmer Answering).

by means of the "Power Charge" that was collected on their electric bills from 2003 through 2012.[612]

306. In addition to this direct impact of power purchases on consumer electric bills, Fulmer also calculates the impact of the Shell contract on payments of the "Bond Charge" that was and continues to be collected on ratepayers' bills to pay for the first nine months of CDWR's 2001 power purchases that were rolled into a bond issuance.[613] Fulmer calculates that payments for the Shell contract represent 0.79% of the total amount of power purchases being financed by the bonds, equaling $61.2 million, and with bond interest equaling $96.8 million.[614] This amount, Fulmer opines, comes to approximately two cents per month on the average residential customer's bill.[615]

iii. Staff's Analysis

307. Commission Trial Staff offers the testimony of Daniel L. Poffenberger, a FERC rate filings specialist, for Staff's down-the-line consumer burden analysis of the Shell Contract.[616]

308. Poffenberger first computes what the burden of the Shell contract was on the average monthly electric bills for California's residential, commercial, and industrial customers, and for street and highway lighting.[617] These findings do not reflect an offset for a substitute long term contract to Shell's long term contract.[618] Poffenberger finds that the Shell contract reflected a burden on the average monthly bill for residential customers of a low of $0.10/month in 2012 to a high of $2.29/month in 2003 (0.115 to 4.328 percent) depending on the utility; for commercial customers, a low of $0.73/month in 2012 to a high of $18.10/month in 2003 (0.128 to 4.387 percent); for industrial

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[612] Ex. SNA-256 at 6:4-7:15, 8:17-10:17, 19:8-20:6 (tbls.3 & 4) (Fulmer Answering); Ex. SNA-260.

[613] Ex. SNA-256 at 6:4-15, 8:1-13 (Fulmer Answering).

[614] *Id*. at 13:3-14.

[615] *Id*. at 14:14-15:2.

[616] Ex. S-100R (Poffenberger Answering).

[617] *Id*. at 18:3-19:15.

[618] Ex. S-100R at 19:9-10 (Poffenberger Answering); Tr. 2498:9-13 (Poffenberger Cross).

customers, a low of $8.00/month in 2012 to a high of $2,226.31/month in 2003 (0.154 to 5.859 percent); and for street and highway lighting, a low of $0.30/month in 2012 to a high of $13.19/month in 2003 (0.126 to 2.759 percent).[619]

309. Next, Poffenberger analyzes the impact on monthly bills of excess revenues that Shell received over Celebi's forward market price-based revenue.[620] In this analysis, Poffenberger takes into account CDWR's right under the Iberdrola contract, commencing on January 1, 2003, to elect whether or not to schedule energy from the Klamath Falls plant, which could have been used by CDWR to save energy costs.[621]

310. Poffenberger finds in connection with Celebi's forward market price-based revenue that the Shell contract imposed excess revenues on California customers' monthly bills for electric service over the contract term as follows: for residential customers, a low of $0.01/month in 2012 to $1.78/month in 2003 (0.02 to 3.35 percent) depending on the utility; for commercial customers, a low of $0.13/month in 2012 to a high of $14.01/month in 2003 (0.02 to 3.40 percent); for industrial customers, a low of $0.74/month in 2012 to a high of $1,723.92/month in 2003 (0.03 to 4.48 percent); and for street and highway lighting, a low of $0.03/month in 2012 to a high of $10.21/month in 2003 (0.01 to 2.14 percent).[622]

311. Finally, Poffenberger essentially duplicates Niemann's LRMC-based analysis using the levelized cost of building a conventional combined cycle generating unit.[623] Poffenberger finds that the amounts CDWR paid to Shell over the life of the long term contract were less than what would have been paid over the same period based on that cost.[624]

312. Based on Poffenberger's analysis, Staff finds that the Shell contract did not result in an excessive burden on consumers down-the-line.[625]

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[619] Ex. S-100R at 19:10-15 (Poffenberger Answering); Ex. S-103R, tbls.9 & 10.

[620] Ex. S-100R at 20:8-23:14 (Poffenberger Answering); Ex. S-103R, tbls.12 & 13.

[621] Ex. S-100R at 20:8-20 (Poffenberger Answering).

[622] Ex. S-100R at 22:4-14 (Poffenberger Answering); S-103R, tbls.12 & 13.

[623] Ex. S-100R at 25:3-26:15 (Poffenberger Answering).

[624] *Id*. at 26:1-3.

[625] *Id*. at 23:7-14.

b. The Shell Contract's "Down the Line" Burden on Consumers

i. Comparison to the Cost of Substitute Power

313. After the Supreme Court in *Morgan Stanley* designated the burden on consumers down-the-line as one of the public interest criteria for overcoming the *Mobile-Sierra* presumption that a bilateral contract is just and reasonable, the Commission pointed to "the cost of substitute power in the absence of the contracts" as a benchmark for telling whether this public interest concern is triggered.[626] The Commission did not specify, however, what form this "cost of substitute power" should take, other than to say that it "may be the actual market prices available at that time for comparable long-term contracts," adjusted to account for "negotiated non-rate terms."[627] It is necessary for the purposes of this Initial Decision to define more precisely this "cost of substitute power."

314. CDWR and Shell were not clairvoyant when they entered into their power contract on May 25, 2001. They could not foresee the future of spot market prices in California at that point. They could not tell whether those prices would rise or fall the next day. Instead, they were faced, as all business persons are faced, with a choice of alternatives at that moment—either to enter into that contract or to do something else to procure power for the State. They made that choice, as all do at such moments, with no concrete information about the future.

315. The most consistent way to evaluate a particular choice among alternatives is to compare it to some objective benchmark. This is what the Commission does when it evaluates the appropriateness of a particular rate of return on equity (ROE) for a public utility to recover in future rates. The ROE is modeled upon a rational shareholder's expectation of a steady stream of dividends and a steady growth rate to be experienced

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[626] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 21 (2014) (Comm'n Order on Remand).

[627] *Id.*

over time. [628] It produces consistent results, unlike the vagaries inherent in trying to estimate price levels in the marketplace.[629]

316. One objective benchmark to compare to the CDWR-Shell contract is the long-run marginal cost of procuring electric power.[630] This is typically represented in economic thought (with the agreement of economics experts on both sides of this case) by the total yearly levelized fixed and variable cost of installing, running, and maintaining a new combined-cycle gas-fired generating plant, expressed as a constant rate in dollars per kilowatt-year.[631] This long-run marginal cost, or "LRMC," is independent of the vagaries

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[628] *Martha Coakley, Mass. Attorney Gen. v. Bangor Hydro-Elec. Co.*, 147 FERC ¶ 61,234, at P 33 (2014) (Opinion No. 531) ("The DCF model is based on the premise that an investment in common stock is worth the present value of the infinite stream of future dividends discounted at a market rate commensurate with the investment's risk.").

[629] *See* Richard H. Thaler, *Misbehaving: The Making of Behavioral Economics* 230-232 (2015) (discussing Robert Shiller's findings that a firm's stock price is too volatile over time to accurately predict the present value of a future stream of dividends).

[630] Ex. CAL-634R at 48:7-12 (Celebi Direct) ("In the long-run, and under equilibrium conditions of having the amount of capacity in place to balance customer needs for reliability against the costs of additional entry, competitive energy prices should be high enough to provide recovery of capital and operating costs (or all-in costs) of new generation units. I refer to these all-in costs as long-run marginal cost (LRMC)."); Ex. SNA-244 at 32:24-33:6 (Niemann Answering) ("While pricing for near-term forward sales may be more closely tied to expectations of the Crisis Period conditions persisting, longer term transactions can reasonably be evaluated against the long-run competitive pricing that approximates LRMC."); *see also* Kahn, Alfred E., *The Economics of Regulation* 160-61 (1988) ("Apart from possible noneconomic considerations, society's interest is in having transportation, energy, or communications provided at the lowest possible cost, with due allowance for possible differences in the quality of services supplied or the costs imposed on the users. [footnote omitted] And economic efficiency requires, additionally, that no business be turned away that covers the cost to society of providing that service. These basic goals are served by permitting rates to be set at long-run marginal costs.").

[631] Ex. CAL-634R at 48:17-49:2 (Celebi Direct); Ex. SNA-244 at 19:14-15 (Niemann Answering).

of the marketplace and represents a constant cost of power to society over the long haul.[632]

317. The analysis of Shell's expert, Niemann, adheres to the LRMC model, calculating consumer burden as the difference between the total cost of Shell's deliveries to CDWR under the contract during its entire 11-year term and what the cost would have been if priced according to LRMC based on the cost of a new combined-cycle gas turbine generating plant.[633]

318. The so-called "best estimate"[634] of Complainants' expert, Celebi, is not based on LRMC. Instead, it is based on forward market prices that were established during the trading days of September 2001, a month which he says happened after the dysfunction in the spot market had ended.[635] Those forward market prices, established during that single month, are projected in Celebi's analysis over the entire 11-year term of the CDWR-Shell contract.[636]

319. Celebi's other alternative, a so-called "fundamentals-based" analysis, is based in the near term (*i.e.*, deliveries in 2001-2004) on short-run marginal cost pricing using market simulation software; in the far term (*i.e.*, deliveries in 2005-2012), it is based on LRMC pricing that is premised on the cost of a new gas-fired combined cycle plant.[637] This measure is compatible with an objective benchmark analysis in the long run, and also accounts for factors that are readily predictable in the short run.[638]

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[632] Ex. SNA-244 at 13:11-12, 33:3-6 (Niemann Answering); *also see* Paul A. Samuelson and William D. Nordhaus, *Economics* 464 n.1 (12th ed. 1985) (long run marginal cost for firm is constant, not rising or falling as with short run marginal cost, because firm faces "no fixed factors" and experiences "constant returns to scale"); Tr. 2704:10-18 (Ritchie Closing Arg.) ("[LRMC is] an estimate of a competitive price at a particular point in time when long run equilibrium conditions would prevail.").

[633] Ex. SNA-244 at 8:5-11, 19:9-20:15 (Niemann Answering); Ex. SNA-244R (Niemann Answering Errata).

[634] Ex. CAL-634R at 24:15 (Celebi Direct).

[635] *Id*. at 4:5-19.

[636] *Id*. at 31:10-35:1.

[637] Ex. CAL-634R at 46:10-73:3 (Celebi Direct); Ex. CAL-646.

[638] Ex. CAL-634R at 47:16-49:2 (Celebi Direct).

320. Unsurprisingly, there are sharp differences in results among the analyses. Complainants, using their "forward pricing" analysis, find a down-the-line burden to consumers for the Shell contract of approximately $1.4 billion in nominal dollars (*i.e.*, undiscounted dollars) ($2.14 billion with interest). Using their "fundamentals-based" analysis, however, Complainants find a smaller down-the-line burden of $384.8 million in nominal dollars ($778.6 million with interest).[639] Shell, by stark contrast, finds with its CONE-based analysis a small down-the-line *benefit* to consumers for that contract of $92,539 in nominal dollars.[640] On a net present value basis, however, Shell's result finds a down-the-line *burden* on consumers of $70.9 million.[641]

321. Although Celebi's "September 2001 forward prices based" approach has surface appeal because the Supreme Court in *Morgan Stanley* focused on price levels "after elimination of the dysfunctional market,"[642] it has several drawbacks. The month of September 2001 immediately followed the end of the Crisis Period and the start of FERC-imposed price caps, two events which caused spot prices to plummet quickly. The month is also notorious, of course, for the disruptions that befell the country as a whole as a result of the tragic events of September 11, 2001, including significant economic disruptions.[643] Hence, the month of September 2001 was not a typical month by any stretch of the imagination.

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[639] *Id*. at 39:1-41:5, 76:1-10.

[640] Ex. CAL-634R at 39:1-8 (Celebi Direct); Ex. SNA-244R at 6 (Niemann Answering Errata); Ex. SNA-248 (Niemann Second Errata (CEC-Based Comparison tab).

[641] Ex. SNA-244R at 6 (Niemann Answering Errata); Ex. SNA-248 (Niemann Second Errata (CEC-Based Comparison tab).

[642] *Morgan Stanley*, 554 U.S. at 552-553 (a relevant consideration is "the disparity between the contract rate and the rates consumers would have paid (but for the contracts) further down the line, when the open market was no longer dysfunctional."); Ex. SNA-240 at 19:10-20 (Safir Answering).

[643] Judicial notice is taken of the fact that the New York Stock Exchange and the NASDAQ did not open on September 11, 2001, and remained closed until September 17, the longest closure since 1933. Upon reopening, the Dow plunged 684 points, a 7.1% decline, setting a record for the biggest loss in exchange history for one trading day. At the close of trading that Friday, the Dow lost almost 1,370 points, a loss of over 14%. *See* http://www.investopedia.com/financial-edge/0911/how-september-11-affected-the-u.s.-stock-market.aspx .

322. Celebi's forward prices based approach also overlooks a recommendation that the Supreme Court in *Morgan Stanley* urged the Commission to take into account, as follows:

> **…** the Commission may have looked simply to whether consumers' rates increased immediately upon the relevant contracts' going into effect, rather than determining whether the contracts imposed an excessive burden on consumers "down the line," relative to *the rates they could have obtained (but for the contracts) after elimination of the dysfunctional market*. For example, the Commission concluded that two of the respondents would experience "rate decreases of approximately 20 percent for retail service" during the period covered by the contracts. [citation omitted] But the baseline for that computation was the rate they were paying before the contracts went into effect. That disparity is certainly a relevant consideration; *but so is the disparity between the contract rate and the rates consumers would have paid (but for the contracts) further down the line, when the open market was no longer dysfunctional*. That disparity, past a certain point, could amount to an "excessive burden."[644]

323. Celebi's forward prices based approach certainly looks at the increase in rates "immediately upon the relevant contracts' going into effect" by comparing them to forward prices that came into being in September 2001. It does not adjust those forward prices, however, to reflect what they *could have been* "*but for the contracts*." In other words, those forward prices might have been different if the long term contracts that CDWR entered into had never been made. They might have been higher, for example, if the "new steel in the ground" that contracts like the Shell contract brought on-line had never been implemented.[645] This consideration raised by the Supreme Court favors the use of a "fundamentals-based" LRMC approach, which accounts implicitly for the Supreme Court's concern, over Celebi's forward prices based approach.[646]

324. Safir alludes to a dampening effect on spot prices that CDWR's entry into long term contracts must have had at the time, and asserts convincingly that spot prices would

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[644] *Morgan Stanley*, 554 U.S. at 552-553 (emphasis added).

[645] *See*, *e.g.*, Tr. 235:22-236:9 (Nichols); Ex. SNA-244 at 33:9-34:8 (Niemann Answering) ("[B]etween May 1, 2000 (the start of the Crisis Period) and the spring of 2001 when the Coral Contract was being negotiated, no new generation had come on-line and only 1,380 MW had begun construction. But, by September 1, 2001, 7,470 MW of new generation was operating or under construction." *See* tbl.2, fig.1).

[646] Tr. 2703:11-2706:9 (Ritchie Closing Arg.).

likely have been higher if those contracts had not been made.[647] In rebuttal, Celebi only confirms Safir's point by noting that "any calming effect on the market would likely have been due to a reduction in sellers' incentives to manipulate the spot market or delay bringing new generation online."[648] Hence, measuring consumer burden by comparing long term contract prices to the forward prices of a single month fails to correct for price swings that are prompted by short-term events; comparing long term contract prices to LRMC, by contrast, avoids that problem altogether.

325. Celebi's reliance on prices that were set over a very short time period of one month, and a momentous month at that, fails to capture long term effects accurately. It is tantamount to trying to "time the market" by picking the best moment to buy electricity. No one is able to always buy low and sell high. It is, in fact, the exact opposite of a long-term contracting strategy. As the Supreme Court aptly observed in *Morgan Stanley*, "[m]arkets are not perfect, and one of the reasons that parties enter into wholesale-power contracts is precisely to hedge against the volatility that market imperfections produce. That is why one of the Commission's responses to the energy crisis was to remove regulatory barriers to long term contracts."[649]

326. Celebi's "fundamentals-based" approach[650] is consistent with the LRMC model, unlike his forward price-based approach. His fundamentals-based benchmark is made up of a near-term segment and a far-term segment.[651] The near-term segment is based upon a short-run marginal cost of procuring power, which considers the variable costs of such production and then-current (*i.e.*, 2001) economic conditions.[652] The far-term segment is based upon LRMC.[653] Celebi shows convincingly that the near-term DAYZER simulation closely follows what a LRMC analysis would show for that same period.[654]

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[647] Ex. SNA-240 at 20:15-21:3 (Safir Answering); *accord*, Staff Pre-hearing Br. at 25; *contra*, Ex. CAL-717 at 170:12-171:10 (Taylor Rebuttal); Ex. CAL-789 at 49:3-50:10 (Celebi Rebuttal).

[648] Ex. CAL-789 at 50:4-6 (Celebi Rebuttal).

[649] *Morgan Stanley*, 554 U.S. at 547.

[650] Ex. CAL-634R at 46:9-76:10 (Celebi Direct).

[651] *Id*. at 47:6-49:2.

[652] *Id*. at 49:3-12, 51:5-9.

[653] *Id*. at 63:15-18.

[654] *Id*. at 72:6-73:3 (Figure 21).

Celebi's "fundamentals-based" result showing a consumer burden of $384.8 million in nominal dollars ($778.6 million with FERC interest to May 2015) is, therefore, a reasonable measure of consumer burden on which to rely here.[655]

327. The discrepancy between Celebi's fundamentals-based approach and Niemann's approach can be reconciled in part by resolving a difference between the two concerning the application of capacity payments that CDWR made to Shell. Celebi includes them in his analyses and Niemann ignores them in his.[656] According to Niemann, these payments from CDWR to Shell under the contract totaled $75.2 million from July 2002 through December 2005.[657]

328. It is more fitting to include the capacity payments as part of the long-run analysis. They should not be dismissed as mere "sunk costs," which Niemann claims is his reason for ignoring them.[658] At the time of making the decision whether or not to enter into the contract, CDWR had not yet tendered the capacity payments to Shell. They would not be made until the middle of the term of the contract. The capacity payments were clearly bargained for by the parties to the contract as an incentive to induce Shell to construct the Wildflower peaking units, generation that CDWR desperately wanted built and Shell wanted to run profitably.

329. There is no evidence in the record that the Wildflower units would have been built or the contract would have been entered into without including capacity payments. Therefore, the capacity payments should be taken into account as a legitimate part of the long term cost of the Shell-CDWR contract. The total capacity payment represents 20 percent of the $384.8 million "fundamentals-based" burden found by Complainants, and turns Shell's $92,539 *benefit* to consumers in nominal dollars into a $75.1 million *burden.*[659]

330. The discrepancy is also reconciled in part by disregarding the alleged excess market-price value over contract-price value that Niemann claims Shell absorbed when it

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[655] *Id*. at 39:1-41:5, 76:1-10.

[656] Tr. 882:12-883:5 (Celebi Cross).

[657] Ex. SNA-244 at 54:11-12 (Niemann Answering). According to Staff's witness, Poffenberger, these payments totaled $73,390,000. Ex. S-100R at 12:12-13 (Poffenberger Answering).

[658] Ex. SNA-244 at 54:1-25 (Niemann Answering).

[659] Tr. 883:21-884:14 (Celebi Cross).

sold power to CDWR at "below-market" rates in April and May of 2001.[660] That amount, totaling $8,779,200, was made up to Shell by the deal that CDWR offered immediately prior to the signing of the contract on May 24, 2001, in which the price to be paid to Shell was increased in the first two years of the contract.[661] Shell accepted this offer.[662] Consequently, Shell is not entitled to a double-recovery by crediting the cost of alleged below-market sales against the consumer burden. Eliminating this credit further increases the consumer burden in nominal dollars, according to Niemann's methodology, to $83.9 million (*i.e.*, $75.1 million + $8.8 million = $83.9 million).

ii. Impact on a Ratepayer's Bill

331. Commission Trial Staff's analysis, which includes the capacity payments,[663] looks at the average monthly burden that each of the four classes of customers (*i.e.*, Residential, Commercial, Industrial, and Street Lighting) experienced on their monthly bills during each year of the 11-year term of the Shell contract.[664] Staff's expert, Poffenberger, points to the Shell contract's impact on average residential customer bills that were as small as one cent per month in one year, while the average industrial customer saw an impact on its bill of $1,723.92 per month in another year.[665] Shell's expert, Fulmer, boils the burden down to a single, miniscule percentage of average monthly bills for all years of the contract term in the amount of 0.49 percent, representing a cost of 57 thousandths of a cent per KWh per month ($0.00057/KWh) for the Power Charge and two cents per month for the Bond Charge.[666]

332. On the other hand, Complainants' witness, Commissioner Florio, computes the difference in the rate that Shell charged for its deliveries compared to the rate that Shell would have paid at post-Crisis forward market prices in every year of the contract term, which does not take into account the costs and quantities of all other purchases of power from all other sellers that the analyses of Shell and Staff take into account.

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[660] Ex. SNA-244 at 22:11-13 (Niemann Answering).

[661] Ex. SNA-219 at 25:5-9 (Brown Answering).

[662] Ex. CAL-200 at 20:17-18 (Nichols Direct); Ex. CAL-31 (executed agreement).

[663] Ex. S-100R at 23:1-6 (Poffenberger Answering).

[664] Ex. S-100R at 23:7-14 (Poffenberger Answering); Ex. S-103R at tbls.12 & 13.

[665] Ex. S-100R at 23:7-14 (Poffenberger Answering); Ex. S-103R at tbls.12 & 13.

[666] Ex. SNA-256 at 4:22-5:2, 19:8-21:13, 14:14-15:2 (Fulmer Answering).

Commissioner Florio finds that the excesses on Shell's sales at the customer level ranged from a high of 15.40¢/KWh in October through December 2001 to a low of 0.84¢/KWh in all of 2009.[667]

333. Both Poffenberger for Staff and Fulmer for Shell calculated their customer-specific overcharges attributable to the Shell contract on the basis of the forward price-based analysis that Celebi performed for Complainants.[668] This Initial Decision, however, finds that Celebi's fundamentals-based analysis is more appropriate than his forward prices-based analysis. It yields lower overcharges for Shell than the forward price-based analysis yields. Neither Staff nor Shell present customer-specific overcharge results using that analysis. Nonetheless, it can be safely assumed that both would result in lower customer-specific overcharges if it were used instead.

334. The wide degree of variation that each party reaches in calculating an absolute value for the "excessiveness" of the "consumer burden" underscores the inappropriateness of relying on an absolute measure to assess this factor of the *Mobile-Sierra-Morgan Stanley* rule. The term "excessive burden on consumers" has never been defined precisely by the Commission, either before or since *Morgan Stanley* was decided. It is akin to the concept of "economic rent," described by economists as the return earned by a factor of production that furnishes the same amount of output no matter how high the factor's price may go.[669]

335. The term "excessive burden on consumers" begs the question, "Excessive when compared to *what*?" It makes far more sense to measure the excessiveness of a consumer burden by comparing its magnitude to something else, not just by deeming some arbitrary number to be "excessive."[670] An economist would judge consumer burden by comparing

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[667] Ex. CAL-241 at 64:1-2 (tbl.5).

[668] Ex. S-100R at 21:16-20 (Poffenberger Answering); Ex. S-103R at tbl.11; SNA-256 at 19:8-17 (Fulmer Answering); Ex. SNA-260 ("Shell Invoice Data" tab).

[669] *See* Paul A. Samuelson and William D. Nordhaus, *Economics* 399-400 (12th ed. 1985).

[670] Indeed, in one of the two Supreme Court cases that spawned the *Mobile-Sierra* doctrine, the concept of "consumer burden" was cast originally in comparative, not absolute terms. The Court identified the central issue in such cases to be "whether the rate is so low as to adversely affect the public interest — as where it might impair the financial ability of the public utility to continue its service, cast upon *other* **consumers** an excessive **burden**, or be unduly discriminatory." *FPC v. Sierra Pac. Power Co.*, 350 U.S. 348, 355 (1956) (emphasis added). Presumably, the windfall enjoyed by ratepayers receiving the low contract rate was to be compared to the increased "burden" that other *(continued ...)*

it to opportunity costs – that is, by comparing it to the costs of "the things that are given up by taking that particular decision rather than taking an alternative decision."[671] A comparative analysis of an electricity charge in relation to these trade-offs can be approached holistically in terms of overall social choice, or at the granular level of the comparative impact on each customer's electric bill.[672]

336. For instance, at the societal level the excess electricity cost might be compared to the equivalent opportunity cost of a social program or public works project. At the level of a customer's bill, the excess electricity charge may be compared to the equivalent opportunity cost of a charge on the bill that pays a customer's share of the cost of demand response, or for an increment to the transmission charge that pays for the construction of new power lines.[673] Either way, it is the relative merit of paying the excess electric cost compared to paying for a foregone alternative that should determine consumer burdensomeness, not the cost's sheer magnitude.

337. From this perspective, the analyses of Poffenberger and Fulmer are incomplete. Both divide Complainants' calculation of the total state-wide "consumer burden" of the Shell contract by total revenue collected from ratepayers to derive an overall average cost of the "consumer burden" to each ratepayer. Both note that it is a miniscule number in some absolute sense, and both therefore conclude that it is not *really* "burdensome" to the typical consumer after all. But neither mentions the opportunity costs of a consumer's payment of that amount in relation to payment for a socially beneficial alternative.[674]

338. The dynamic impact of the consumer burden is masked by focusing on a single number to represent the average monthly percentage burden for the entire term of the CDWR-Shell contract. A lone number hides the fact that the excessive charges were very high during the early years of the contract and lower in the later years. This

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ratepayers bore as a consequence.

[671] Paul A. Samuelson and William D. Nordhaus, *Economics* 469 (12th ed. 1985); Complainants Post-hearing Initial Br. at 72.

[672] Tr. 2600:11-23 (Poffenberger Cross).

[673] Ex. CAL-699 at 12:4-9 (Florio Rebuttal) ("Utilities recover a myriad of expenses and authorized rate base components that are required to furnish reliable electricity service and achieve California's ambitious policy mandates such as low-income customer programs, energy efficiency improvements, renewable and other preferred resource procurement mandates, and other public policy goals.").

[674] Tr. 2698:14-2699:11 (Ritchie Closing Arg.).

approach measures the height of the fulcrum without accounting for the heights of the two opposing ends of the seesaw.

339. When the Supreme Court in *Morgan Stanley* described the consumer burden "down the line,"[675] and the Commission defined this term to mean that the burden "should be measured based on the life of the contracts,"[676] they did not imply that this measure should be reduced to a single number representative of the entire time period of the contract term. To do so would run counter to the Commission's usual preference for taking inter-generational inequities into consideration, which a single number like this one cannot adequately capture.[677]

340. Commissioner Florio's analysis shows that the rates that consumers paid for power delivered under the Shell contract in early years of 2001-2003 were four to six times higher than what competitive rates would have been once the market dysfunction ended.[678] Four- to six-fold increases in electricity costs cannot be absorbed without severe economic dislocation. The degree of these dislocations is captured in Commissioner Florio's testimony recounting the hardships that residential and business electricity consumers endured during this period and afterward.[679]

341. For instance, the substantial impact that Poffenberger's analysis shows on industrial customers suggests that there was a major impact on California's

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[675] *Morgan Stanley*, 554 U.S. at 552.

[676] *CPUC v. Sellers*, 149 FERC ¶ 61,127, at P 20 (2014) (Order on Remand).

[677] *See*, *e.g.*, *ISO New England Inc., et al.*, 153 FERC ¶ 61,343, at P 8 n.19 (2015) ("PBOP accounts are typically amounts that are amortized over a set period of time much like depreciation or decommissioning expenses. A modification in the amortization without Commission scrutiny can result in over-recovery or intergenerational inequities."); *see also* Ex. CAL-241 at 59:1-7 (Florio Direct) ("Moreover, the fact that ratepayers are still paying today for power delivered under the Long-Term Contracts in 2001 – 2002, including the Shell and Iberdrola Contracts, is astounding. The bonds did not finance anything that provided a lasting benefit. Consumers who are paying back principle plus interest today for electricity consumed way back in 2001- 2002 may not have even lived in California at the time. This is fundamentally unfair to those consumers.").

[678] Ex. CAL-241 at 65:1-4 (Florio Direct).

[679] Ex. CAL-241 at 47:1-56:13 (Florio Direct); Exs. CAL-262 through CAL-265.

manufacturing base that threatened its competitiveness. [680] Commissioner Florio recounted several examples of hardship in the industrial and agricultural sectors, such as the "Shasta Paper Company, which laid off 400 workers on August 20, 2001 … [folding] after its monthly Pacific Gas and Electric Co. bill jumped to about $1.3 million, a $500,000 increase …."[681]

342. Hence, the analyses of Poffenberger and Fulmer are inadequate because they do not take opportunity costs and socio-economic impacts into account. Of course, since Respondents and Staff do not carry the burden of proof, they do not have to take these things into account. Complainants do bear that burden, and they have met that burden by identifying several socio-economic trade-offs that the State has been forced to make because of the excessive consumer burden of the Shell contract.[682]

343. Commissioner Florio describes one:

> One important use of funds collected through electric rates is California's Public Purpose Programs. These public purpose programs fund low income ratepayer assistance programs, energy efficiency programs and other programs that support California's energy goals. [citation omitted] The average annual revenue requirement for public purpose programs from 2008-2012 was just over $1 billion. [citation omitted]. California ratepayers could have funded almost two additional years of these programs if they had not instead carried the burden of the $1.97 billion in total nominal overcharges from late 2001 through the end of the Shell Contract in 2012.[683]

344. The point that Commissioner Florio makes for the opportunity cost of a consumer burden of over $1 billion is equally true at the lesser levels of consumer burden that Celebi's fundamentals-based analysis and the analyses of the other parties in this case make, regardless of whether they are computed holistically for all of society, or computed granularly at the level of each customer's bill. Charging consumers small amounts per kilowatt-hour is a powerful means of raising revenue for socially beneficial causes.[684]

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[680] Ex. S-100R at 19:10-15, 22:4-14 (Poffenberger Answering); Ex. S-103R, tbls 9, 10, 12, & 13 (Poffenberger Answering).

[681] Ex. CAL-241 at 54:8-56:13 (Florio Direct).

[682] Ex. CAL-699 at 16:2-12 (Florio Rebuttal).

[683] *Id*.

[684] Tr. 2601:3-7 (Poffenberger).

Hence, the effectiveness of charging electricity consumers, on average, an extra ten cents per month as Poffenberger measures the excess cost of the Shell contract over its entire term, [685] or an extra 57 thousandths of a cent per kilowatt-hour as Fulmer measures the excess cost of the Shell contract over its entire term, [686] can collectively raise enormous sums for any cause.

345. Another way to look at consumer burden is from the standpoint of a long-term investment. When one makes a long-term investment, one expects a reasonable rate of return on that investment. For example, an investment in building a new power plant will result in the completion of a facility that generates electricity in the future and makes money for its owners at a rate of return in excess of the next best alternative for investing the money.

346. Along these lines, Fulmer compares the rate impact of the Shell's alleged overcharge to the impact of other power purchase agreements entered into by PG&E and approved by the CPUC. In particular, he examines two instances in 2014 in which PG&E purchased power with rate impacts greater than the Shell contract: (i) the sale by Genesis Solar to PG&E of 592,638 MWhs at an average energy price of $216 per MWh, and (ii) the sale by Topaz Solar Farms to PG&E of 1.05 million MWhs at an average energy price of $170 per MWh.[687] These contracts were entered into pursuant to the statutorily-mandated Renewable Portfolio Standards (RPS) that require IOUs to procure a certain percentage of retail electricity sales from qualified renewable resources.[688]

347. Fulmer found that the excess cost of the Genesis Solar deliveries constituted sixty-six hundredths of one percent (0.66%) of PG&E's rates while the excess cost of the Topaz Solar Farm deliveries constituted seventy-eight hundredths of one percent (0.78%) of PG&E's rates. Both of these values, he asserts, are greater than the average alleged overcharge associated with the Shell contract.[689]

348. If anything, Fulmer's examination of these two renewable energy contracts underscores the excessiveness of the Shell contract overcharge compared to paying off a long-term investment. These two contracts build PG&E's portfolio of renewable energy

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[685] Ex. S-100R at 22:4-14 (Poffenberger Answering); Ex. S-103R, tbls.12 & 13.

[686] Ex. SNA-256 at 4:22-5:2, 19:8-21:13 (Fulmer Answering); Ex. SNA-260.

[687] Ex. SNA-256 at 23:5-12 (Fulmer Answering).

[688] Ex. CAL-699 at 28:18-29:2 (Florio Rebuttal).

[689] Ex. SNA-256 at 24:12-19 (Fulmer Answering).

resources for future use. By contrast, the excess burden that consumers pay for the Shell contract is only economic rent; it builds nothing for future use and profit.[690] It only pays off the debt for an unlawful overcharge for one year of electric consumption long ago that should not have been owed. Excusing the overcharge simply because it is smaller than some current investment in future infrastructure does not excuse the fact that it was a waste of resources in the first place.

349. Upon rehearing of Opinion No. 537 in the *Puget Sound Energy* case, the Commission noted that each California resident was paying $0.27 per month for the Respondents' aggregate overcharges to CDWR that were alleged in that case.[691] This amount, the Commission found, was "not of an excessive burden sufficient to overcome the *Mobile-Sierra* presumption."[692] The impacts on customer bills found by the experts in this case, by comparison, range enormously. In comparison to Staff witness Poffenberger's analysis of monthly bills, the impact here is as little as 3.7% of the *Puget Sound Energy* monthly burden for residential customers, but as much as 638,488% of that amount for industrial customers.[693]

350. It defies economic sense to rely on arbitrary absolutes as unchanging borderlines of "consumer burdensomeness" instead of comparing the burden to foregone opportunity costs. "Consumer burden" is a relative quality, not a red line. A comparative analysis is usually preferred by the Commission and the courts over an absolute boundary when analyzing cost impacts.[694] The Commission has recognized opportunity costs as a

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[690] Ex. CAL-699 at 5:13-18 (Florio Rebuttal) ("In my view, the appropriate measure of consumer burden is best captured by the excessive rates paid under the Shell and Iberdrola Contracts themselves, which add up to over $1.97 billion in nominal payments over the contracts' terms, and over $3 billion including interest. Consumers paid these excessive rates to Shell and Iberdrola but received absolutely no commensurate value for the extra payments.").

[691] *Puget Sound Energy v. All Jurisd. Sellers*, 153 FERC ¶ 61,386, at P 122 (2015).

[692] *Id.*

[693] Ex. S-100R at 23:7-14 (Poffenberger Answering); Ex. S-103R at tbls.12 & 13.

[694] *See*, *e.g.*, *FERC v. Elect. Power Supply Ass'n*, __U.S.__, 136 S.Ct. 760, 782-783 (2016) (Approving use of "net benefits test" in evaluating demand response bids); *Ill. Commerce Comm'n v. FERC*, 756 F.3d 556, 564 (7th Cir. 2014) ("If [FERC] continues to argue that a cost-benefit analysis of the new transmission facilities is infeasible, it must explain why that is so and what the alternatives are."); *ISO New England Inc.*, 150 FERC ¶ 61,209, at P 387 (2015) (FERC approves transmission upgrade cost allocations to states "whose customers consume more electric energy at *(continued ...)*

legitimate factor in designing rates in proceedings under section 4 of the Natural Gas Act.[695]

351. It would be unfaithful to the public interest against price manipulation to excuse the defrauding of millions of people simply by saying that the perpetrator stole only a few cents from everybody. Like the harrowing tones of Ludwig von Beethoven's "Rage Over a Lost Penny,"[696] public anger about an unfair charge of even a small amount on an electric bill is no less intensely felt.[697] The public interest is not satisfied by diluting the consumer burden over an immense number of customers. "Under this perverse theory,"

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peak times … than those that consume less. We find that such a cost allocation mechanism is 'roughly commensurate' with the benefits derived from such facilities and consistent with the cost causation principle."); *Pub. Serv. Co. of New Mexico*, 151 FERC ¶ 61,189, at PP 17-19 (2015) (CAISO inter-regional transmission project costs to be allocated among regions in compliance with FERC Order 1000 by method that compares avoided net "cost of the regional transmission solution minus net economic benefits" with "the regional economic benefits of the interregional transmission solution."); *PJM Interconnection, L.L.C.*, 123 FERC ¶ 61,051, at P 29 (2008) (PJM's regional economic transmission planning process, having a "formulaic approach to choosing economic projects that weighs costs and benefits through a specific set of metrics … provides clarity to PJM's approach to economic proposals, and therefore, will give potential investors additional certainty.").

[695] *See El Paso Natural Gas Co.*, 139 FERC ¶ 61,096 (2012); *Columbia Gas Transmission Corp.*, 124 FERC ¶ 61,122 (2008); *Columbia Gulf Transmission Co.*, 119 FERC ¶ 61,128, at P 29 (2007), *order on reh'g*, 124 FERC ¶ 61,121, at P 6 (2008); *Natural Gas Pipeline of Am.*, 103 FERC ¶ 61,174, at P 63 (2003); *but see Transcontinental Gas Pipe Line Corp.*, 154 FERC ¶ 61,211, at PP 106 and 108 (2016) (rejecting opportunity cost theory, but distinguishing prior cited cases on the facts of the case then before the Commission).

[696] L. von Beethoven, *Rondo alla ingharese quasi un capriccio* in G major, Op. 129, *available at* http://www.beethoven-haus-bonn.de/sixcms/detail.php?id=15248&template=werkseite_digitales_archiv_en&_eid=1510&_ug=Pieces%20for%20two%20hands&_werkid=131&_mid=Works%20by%20Ludwig%20van%20Beethoven&suchparameter=&_seite=1.

[697] *See*, *e.g.*, Tr. 967:9-968:3 (Berck Cross) ("Q: But you think that's a fair characterization of how you view burdens? You get riled up even for a silly 50 cents if you thought there were no value associated with the charge? A: People are—I, [in] particular, am much more sensitive to having money taken for which I did not receive value. Q: No one likes to be ripped off; right? A: I would hope that is true.").

Complainants aptly point out, "the greater the number of consumers harmed, the more difficult the contract is to challenge."[698] If it were the law, then the *Mobile-Sierra-Morgan Stanley* Rule would immunize all contracts against abrogation, not weigh their relative worth against the public interest. As expressed in the colorful words of Complainants' witness, Commissioner Florio:

> "[P]eanut buttering" the $1.97 billion (nominal) in excessive payments out over two billion MWh of electricity sold by the three IOUs from October, 2001 through 2012 is not an appropriate measure of consumer harm, because it makes the determination of whether an excessive customer burden was imposed turn on how many customers were harmed.… This view loses sight of the trees, just because the forest is lush.[699]

352. The California Energy Crisis generated huge public outrage. Commissioner Florio's testimony reveals many instances of hardship that citizens endured and wrote to the CPUC about because of high electric bills and rolling blackouts—the inability of people on fixed incomes to buy necessities because they must pay electric bills that increased by $100 a month,[700] the disruption of normal routines in order to conserve electricity,[701] the need to reduce home heating to minimal levels during cold winters in order to reduce the bill,[702] the fear of losing one's home,[703] the increased cost of operating medical equipment.[704] Businesses suffered as well, threatening to abort an economic revival in California that had just gotten started.[705]

353. The Commission has an affirmative duty to vindicate the public interest. "[B]oth the courts and the Commission have concluded previously that protecting consumers is

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[698] Complainants Post-hearing Initial Br. at 77.

[699] Ex. CAL-699 at 6:11-16, 7:13-14 (Florio Rebuttal).

[700] Ex. CAL-241 at 47:13-48:18 (Florio Direct).

[701] Ex. CAL-241 at 50:20-36.

[702] *Id*. at 51:18-23.

[703] *Id*. at 51:24-52:4.

[704] *Id*. at 52:24-53:2.

[705] *Id*. at 54:8-56:13.

one of the Commission's primary responsibilities."[706] Recently, the Supreme Court reiterated that the FPA's "core objects" are "to protect against excessive prices and ensure effective transmission of electric power."[707]

354. The purpose behind analyzing consumer burden is not to "reinstitut[e] cost-based rather than contract based regulation,"[708] which the Supreme Court in *Morgan Stanley* urged the Commission to avoid. Rather, the analyses quantify the degree of "public interest" that inures to the contract at issue, an otherwise intangible characteristic that is the touchstone of the *Mobile-Sierra* doctrine. None of the analyses compute precisely what a "just and reasonable" contract rate would have been for the contracts at issue, in the absence of the *Mobile-Sierra Morgan Stanley* presumption.

355. Although the analyses reach results that differ quantitatively from one another, the fact remains that both Complainants' and Shell's fundamentals-based analyses, after capacity payments are properly taken into account, demonstrate in qualitative terms that the Shell contract was an excessive net burden on consumers.

c. Conclusion on the Shell Contract's "Down the Line" Burden

356. Accordingly, Complainants have carried their burden of proving, by a preponderance of the evidence, that the Shell contract imposed an excessive burden on consumers "down the line" in the nominal-dollar amount of $384.8 million ($779 million when FERC interest to May 2015 is included, plus additional FERC interest from May 2015 to date).[709]

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[706] *American Electric Power Service Corp.*, 153 FERC ¶ 61,167, at P 17 (2015) (*citing FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 610 (1944) ("The primary aim of [the NGA] was to protect consumers against exploitation at the hands of natural gas companies"); *accord Pa. Water & Power Co. v. FPC*, 343 U.S. 414, 418 (1952) (purpose of the FPA is "to protect consumers against excessive prices"); *see also Md. People's Counsel v. FERC*, 761 F.2d at 781 (concluding that the Commission "has not adequately attended to the agency's primary constituency – the consumers"); *Pub. Sys. v. FERC*, 606 F.2d 973, 979 n.27 (D.C. Cir. 1979) ("[T]he Federal Power Act aim[s] to protect consumers from exorbitant prices and unfair business practices.").

[707] *FERC v. Elec. Power Supply Ass'n*, __ U.S. __, 136 S.Ct. 760, 781 (2016).

[708] *Morgan Stanley*, 554 U.S. at 550.

[709] Ex. CAL-634R at 76:1-6 and tbl.8 (Celebi Direct).

2. Iberdrola Contract

a. The Parties' Analyses

i. Complainants' Analysis

357. As with the Shell contract, Complainants' economics experts, Celebi and Berck, analyze the down-the-line economic burden on California consumers caused by the Iberdrola contract.[710] Celebi conducts the same three analyses for the Iberdrola contract that were performed for the Shell contract. [711] Berck applies his EDRAM model to determine the impact on California's real state personal income and employment of Celebi's computation of the Iberdrola contract's down-the-line economic burden.[712]

358. Regarding Celebi's first analysis, he finds that the Iberdrola contract, like the Shell contract, was "very highly priced as compared to long-term contracts executed in the September 2001-December 2002 period."[713] However, as in the case of the Shell contract, Celebi does not attempt to determine a cost of substitute power based on these other post-Crisis contracts.[714]

359. For his second analysis, Celebi compares the difference between the total payment to Iberdrola over the entire contract term and the total payment under his post-Crisis compilation of forward market prices for the same volumes. [715] This amount, in nominal dollars, comes to approximately $601 million (*i.e.*, $1.085 billion in actual payments to Iberdrola - $485 million in forwards-based payments = $601 million).[716] With FERC quarterly interest rates applied through May 2015, the amount comes to $875 million.[717]

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[710] Ex. CAL-634R (Celebi Direct); Ex. CAL-666 (Berck Direct).

[711] Ex. CAL-634R at 3:13-5:18 (Celebi Direct).

[712] Ex. CAL-666 (Berck Direct).

[713] *Id*. at 24:4-11.

[714] *Id*. at 24:9-11.

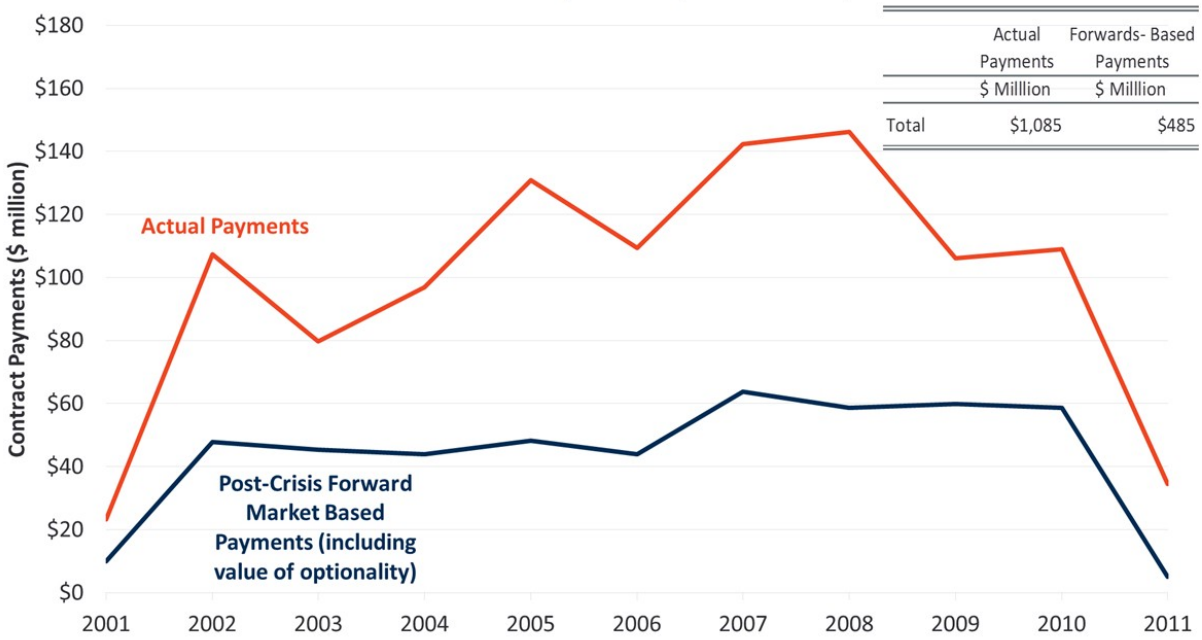
[715] *Id*. at 24:11-15, 25:1-36:2.

[716] Ex. CAL-634R at 39:9-11 (Celebi Direct); Ex. CAL-668 (Iberdrola tab).

[717] Ex. CAL-634R at 41:1-5 (Celebi Direct); Ex. CAL-668 (Iberdrola tab).

Celebi's down-the-line difference between actual payments to Iberdrola and post-Crisis forward market-based payments is depicted in the following figure:[718]

Actual Iberdrola Contract Payments vs. Post-Crisis Forward Market-Based Payments (Nominal $s)



360. For his third analysis, Celebi finds that Iberdrola's contract prices exceeded fundamentals-based prices in all years except 2001 and 2011.[719] He estimates the consumer burden represented by the difference between projected payments under the Iberdrola contract and projected payments under fundamentals-based prices to be $258.7 million ($371 million, including FERC interest to May 2015).[720]

361. Commissioner Florio's table, the Iberdrola part of which is shown here, indicates how much in cents per kilowatt-hour California customers paid to Iberdrola during each year of its contract term in excess of the rates that they would have paid for the same deliveries at post-Crisis prices:[721]

Excess Consumer Rates -- Difference Between Actual CDWR-Iberdrola

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[718] Ex. CAL-634R at 40 (fig.13) (Celebi Direct).

[719] *Id*. at 74:4-75 (fig.23).

[720] *Id*. at 77:1-5 & tbl.9.

[721] Ex. CAL-241 at 63:6-65:7 & tbl.5 (Florio Direct).

Contract Prices and Post-Crisis Forward Market Prices

Year	Iberdrola Contract		
	actual rate (¢/kWh)	post-crisis rate (¢/kWh)	**excess rate (¢/kWh)**
2001 (Oct-Dec)	7.00	2.98	**4.02**
2002	7.00	3.12	**3.88**
2003	7.73	3.89	**3.85**
2004	9.64	3.84	**5.81**
2005	11.79	3.86	**7.92**
2006	11.35	4.00	**7.36**
2007	9.77	4.01	**5.75**
2008	11.25	4.10	**7.15**
2009	8.42	4.32	**4.09**
2010	8.69	4.25	**4.44**
2011	57.05	3.97	**53.08**
2012			

362. Finally, Berck applies his EDRAM model to Celebi's September 2001 forwards market-based overcharge attributable to the Iberdrola contract of $601 million, as adjusted to its 2001 net present value (NPV) of $500 million.[722] Berck then calculates that this overcharge reduced the present value of California's real state personal income by $1.4 billion and cost the state approximately 1,400 jobs.[723]

ii. Iberdrola's Analysis

363. Iberdrola offers the testimony of A. Joseph Cavicchi, an economist, to respond to Celebi's analysis on behalf of Complainants that the Iberdrola contract with CDWR imposed an excessive burden on California consumers.[724] Iberdrola also offers the testimony of William A. Monsen, an energy consultant, to address the Iberdrola contract's impact on consumer electric rates.[725]

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[722] Ex. CAL-666 at 3:6-4:9, 5:16-18, 5:19-6:2 (Berck Direct); Ex. CAL-669 (Summary tab).

[723] Ex. CAL-666 at 7:4-8 (Berck Direct); Ex. CAL-669 (Summary tab).

[724] Ex. IB-222 (Cavicchi Answering).

[725] Ex. IB-246 (Monsen Answering).

364. According to Cavicchi, Celebi's analysis makes the unremarkable observation that once supply and demand fundamentals had reversed themselves, CDWR may have been able to secure a lower-cost contract when compared to the Iberdrola contract's total, "all-in" costs.[726] That CDWR's placement of 12,800 MW of power under long term contract turned a situation of shortage into one of surplus is no surprise, Cavicchi asserts.[727] It is to be expected that new capacity and conservation efforts at the end of the Crisis drove power prices down and alleviated expectations of future shortages, Cavicchi says.[728] Long term contracts like Iberdrola's made that possible, he claims.[729]

365. According to Cavicchi, Celebi's forward price based benchmark is not high enough to support new generation additions over the term of the Iberdrola contract.[730] He points out that power plant costs rose considerably over the term of the Iberdrola contract and the CPUC has subsequently approved new IOU ratepayer-backed capacity additions at much higher prices for new plant additions "down the line." Hence, Cavicchi states, Celebi's analysis is inconsistent with actual capacity prices experienced over the term of the Iberdrola contract.[731]

366. Cavicchi criticizes Celebi for combining capacity and energy costs incurred by CDWR under the Iberdrola contract instead of analyzing capacity costs alone.[732] The Iberdrola contract "tolled" to CDWR the low-cost power supply generated by the Klamath Cogeneration Project whenever CDWR requested dispatch, in return for a monthly capacity charge.[733] CDWR, therefore, could call on the plant whenever its power supply was economically attractive compared to other sources of supply, saving CDWR higher alternative energy costs.[734] As a "tolling agreement," Iberdrola argues, the

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[726] Ex. IB-222 at 23:18-20 (Cavicchi Answering).

[727] *Id*. at 23:20-22.

[728] *Id*. at 24:11-12.

[729] *Id*. at 24:13-16.

[730] *Id*. at 25:3-5.

[731] *Id*. at 25:8-12, 40:21-41:5.

[732] *Id*. at 27:1-3.

[733] *Id*. at 28:7-8.

[734] *Id*. at 28:9-13.

capacity charges of the Iberdrola contract cannot be compared to the energy cost of Celebi's forward price-based benchmark.[735]

367. Cavicchi compares the Iberdrola contract to similar long-term tolling contracts with developers of new combined-cycle generation capacity that SCE executed after the Energy Crisis passed.[736] Cavicchi states that these contracts were similarly priced and contained comparable features to the Iberdrola contract.[737] The capacity pricing in these contracts was very close together at $13.89/kW-month and $15.41/kW-month, whereas the Iberdrola capacity price fell in the middle of them at $14.23/kW-month.[738] These contracts were unaffected by spot market dysfunction and represented "possibly the best indication of a reasonable price for combined-cycle capacity just after the Energy Crisis was alleviated," Cavicchi asserts.[739]

368. Monsen adds to Iberdrola's analysis that the impact of the Iberdrola contract on ratepayers was very small.[740] The "gross impact" on average ratepayers of each IOU – that is, the impact of all costs associated with the Iberdrola contract without offsetting any costs related to power purchases that the IOUs would have had to make if not for the Iberdrola contract – ranged as follows during the years that the Iberdrola contract was in place:[741]

[735] Ex. IB-222 at 5:4-9, 24:6-9 (Cavicchi Answering); Iberdrola Post-hearing Initial Br. at 45-48; Iberdrola Post-hearing Reply Br. at 23-25.

[736] Ex. IB-222 at 32:5-12 (Cavicchi Answering); Ex. IB-233.

[737] Ex. IB-222 at 32:12-14 (Cavicchi Answering); Ex. IB-233.

[738] Ex. IB-222 at 32:17-33:2 (Cavicchi Answering); Ex. IB-233.

[739] Ex. IB-222 at 34:18-21 (Cavicchi Answering); Ex. IB-233.

[740] Ex. IB-246 at 4:1-4 (Monsen Answering).

[741] *Id*. at 35:4-10, tbl.11.

Iberdrola Impact on Average Rates by IOU ($/MWh)

	PG&E	SCE	SDG&E
2001	0.21	0.24	0.23
2002	0.58	0.64	0.62
2003	0.71	0.23	0.22
2004	0.84	0.28	0.27
2005	1.18	0.33	0.32
2006	0.89	0.32	0.31
2007	1.23	0.34	0.32
2008	1.26	0.33	0.31
2009	0.82	0.35	0.32
2010	0.86	0.36	0.34
2011	0.19	0.18	0.17

369. The "net impact" on average ratepayers – that is, the impact of all costs associated with the Iberdrola contract offset by the value of energy and capacity estimated by Celebi – ranged as follows for the same years:[742]

Iberdrola Unavoidable Net Market Rate Impact by IOU ($/MWh)

	PG&E	SCE	SDG&E
2001	0.07	0.08	0.08
2002	0.32	0.36	0.35
2003	0.07	0.08	0.08
2004	0.09	0.10	0.09
2005	0.10	0.11	0.10
2006	0.09	0.10	0.09
2007	0.09	0.10	0.10
2008	0.08	0.09	0.09
2009	0.08	0.09	0.08
2010	0.08	0.09	0.08
2011	0.04	0.04	0.04

370. Hence, according to Monsen, net rate impacts for all but one year of the Iberdrola contract ranged from $0.04—$0.11 per MWh, or no more than 0.3% of the average rates for residential, commercial and industrial customers of PG&E, SCE and SDG&E.[743]

iii. Staff's Analysis

371. As with the Shell contract, Commission Trial Staff's expert witness, Poffenberger, offers Staff's down-the-line consumer burden analysis of the Iberdrola contract.[744]

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[742] *Id*. at 41:5-11, tbl.16.

[743] *Id*. at 4:4-6.

372. Using the same analysis that he performed on the Shell contract, Poffenberger finds that the Iberdrola contract reflected a burden on the average monthly bill for residential customers of a low of $0.06/month in 2011 to a high of $0.71/month in 2002 (0.071 to 1.483 percent); for commercial customers, a low of $0.45/month in 2011 to a high of $6.52/month in 2008 (0.079 to 1.469 percent); for industrial customers, a low of $4.01/month in 2011 to a high of $1247.07/month in 2008 (0.097 to 1.803 percent); and for street and highway lighting, a low of $0.21/month in 2011 to a high of $3.21/month in 2002 (0.076 to 0.801 percent).[745]

373. Regarding the impact on monthly bills of excess revenues that Iberdrola received over Celebi's forward market price-based revenue, Poffenberger finds as follows: for residential customers, a low of $0.06/month in 2011 to a high of $0.55/month in 2005 (0.07 to 1.06 percent); for commercial customers, a low of $0.44/month in 2011 to a high of $4.37/month in 2005 (0.08 to 1.13 percent); for industrial customers, a low of $3.99/month in 2011 to a high of $448.28/month in 2005 (0.10 to 1.68 percent); and for street and highway lighting, a low of $0.18/month in 2011 to a high of $2.23/month in 2005 (0.08 to 0.49 percent).[746]

374. Finally, Poffenberger's LRMC-based analysis using the levelized cost of building a conventional combined cycle generating unit shows that the amounts CDWR paid to Iberdrola over the life of the long term contract were less than what would have been paid over the same period based on that cost.[747]

375. Based on Poffenberger's analysis, Staff finds that the Iberdrola contract did not result in an excessive burden on consumers down-the-line.[748]

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[744] Ex. S-100R (Poffenberger Answering).

[745] Ex. S-100R at 19:16-20:7 (Poffenberger Answering); Ex. S-103R, tbls.19 & 20.

[746] Ex. S-100R at 23:15-24:2 (Poffenberger Answering); Ex. S-103R, tbls. 22 & 23.

[747] Ex. S-100R at 26:1-3 (Poffenberger Answering).

[748] *Id*. at 24:14-25:2.

b. The Iberdrola Contract's "Down the Line" Burden on Consumers

i. Comparison of the Cost of Substitute Power

376. Like his analysis of the consumer burden of the Shell contract, Celebi's analysis of the consumer burden of the Iberdrola contract reaches the same conclusion, only on a smaller scale. As with his analysis of the Shell contract, Celebi's "fundamentals-based" analysis is a persuasive measure of consumer burden from a qualitative standpoint, regardless of the quantitative result.

377. Complainants and Iberdrola disagree vigorously on whether the Iberdrola contract is a "tolling agreement," which is based mainly on capacity charges rather than energy charges.[749] Even assuming that the Iberdrola contract is indeed a "tolling agreement," however, the Commission measures consumer burden on the basis of the difference between "what *consumers' rates* were" and "what *consumers' rates* would have been down the line in the absence of the contract."[750] Necessarily, consumers' rates are based on the "all-in" costs of electricity, which include both energy *and* capacity costs. Moreover, Celebi's fundamentals-based analysis, which is based closely on LRMC, takes into account the long run fixed costs that are recovered by capacity charges; hence, Celebi's analysis that includes the capacity costs of the Iberdrola tolling contract is appropriate.

378. Iberdrola's expert, Cavicchi, criticizes Celebi's forward prices-based analysis in other respects, for reasons similar to what has already been discussed in connection with the Shell contract. It is unnecessary to address these criticisms, however, because Celebi's fundamentals-based analysis, not his forward prices-based analysis, forms the basis for this conclusion that the Iberdrola contract imposes an excessive burden on consumers.

ii. Impact on a Ratepayer's Bill

379. As with Shell, Poffenberger for Staff calculated his customer-specific overcharge attributable to the Iberdrola contract on the basis of the forward price-based analysis that

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[749] Iberdrola Post-hearing Initial Br. at 45-48; Iberdrola Post-hearing Reply Br. at 23-25; Complainants Post-hearing Initial Br. at 68-69; Complainants Post-hearing Reply Br. at 39-40.

[750] *CPUC v. Sellers of Long-Term Contracts*, 149 FERC ¶ 61,127, at P 22 (2014) (emphasis added).

Celebi performed for Complainants.[751] Monsen for Iberdrola performed a somewhat different analysis of the overcharge based on Celebi's estimates of spot market prices in 2001 and 2002 rather than forward prices, and also used Celebi's estimates of capacity charges in the marketplace.[752] This Initial Decision, however, finds that Celebi's fundamentals-based analysis is more appropriate than the forward prices-based analysis. It yields lower overcharges for Shell and Iberdrola than the forward-price based analysis yields. Neither Staff nor Iberdrola present customer-specific overcharge results using that analysis. It is assumed that both would yield similar results to one another.

380. The point made by Monsen and Poffenberger about the small impact of the Iberdrola contract on consumer bills is inadequate and incomplete, as explained above in connection with the Shell contract. An $875 million net consumer burden does not disappear simply because it is diluted across the bills of millions of ratepayers. It must be compared to the trade-off of alternative uses for the funds that could have served the public interest if they had been available, and the socio-economic impacts that the State experienced. As with the Shell contract, the benefit that could have inured to the public, which was instead wasted on overpayments to Iberdrola for electricity, is amply demonstrated.

c. Conclusion on the Iberdrola Contract's "Down the Line" Burden

381. Accordingly, Complainants have carried their burden of proving, by a preponderance of the evidence, that the Iberdrola contract imposed an excessive burden on consumers "down the line" in the nominal-dollar amount of $258.7 million ($371 million when FERC interest to May 2015 is included, plus additional FERC interest from May 2015 to date).[753]

3. Other Serious Harm to the Public Interest

382. The parties raise no other public interest considerations that affect the *Mobile-Sierra Morgan Stanley* Rule in this case. Two points, however, warrant mention at this juncture.

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[751] Ex. S-100R at 21:4-13 (Poffenberger Answering); Ex. S-103R at tbl.21.

[752] Ex. IB-246 at 30:15-31:13 (Monsen Answering).

[753] Ex. CAL-634R at 77:1-5 and tbl.9 (Celebi Direct).

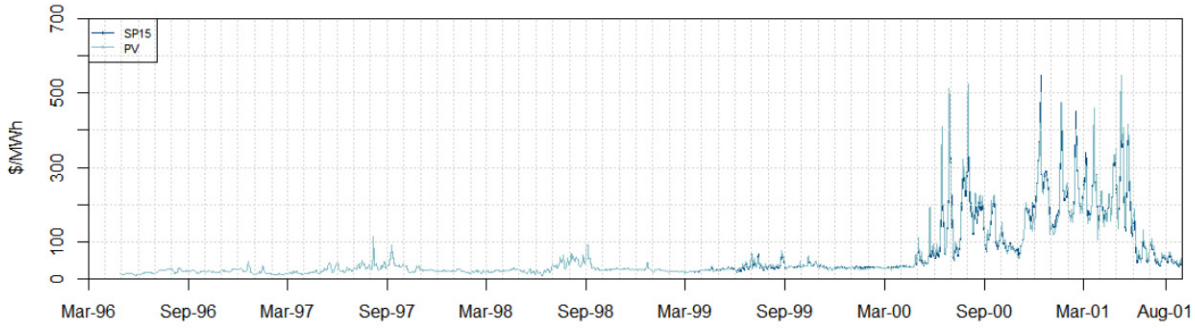
a. "Extraordinary Circumstances"

383. The Supreme Court made clear that avoiding or overcoming the *Mobile-Sierra-Morgan Stanley* Rule occurs only in "extraordinary circumstances" involving "unequivocal public necessity" where the contract "seriously harms" the public interest or imposes "an excessive burden on consumers."[754] Remarkably, it is an undisputed fact among all parties that "[t]he Crisis was *unprecedented* in the modern history of the U.S. electric industry in terms of its severity, duration, and consumer impacts."[755] This finding of fact alone suffices to dispose of the *Mobile-Sierra-Morgan Stanley* presumption in its entirety in this case.

384. It must be borne in mind that the *Mobile-Sierra-Morgan Stanley* Rule does not focus alone on the *magnitude* of harm to consumers. It focuses on the *uniqueness* of the harm; on the fact that it is something that has rarely – or never – happened before.

385. The Western Energy Crisis easily fits the description of an unparalleled historical event. A mere glance at the following figure presented in Goldberg's testimony proves the point:[756]

PV and SP-15 Spot Prices from May 1996 through August 2001



Source: Power Markets Week WSCC Spot Price Indices.

[754] *Morgan Stanley*, 554 U.S. at 550.

[755] *See* FF 15 (emphasis added); Complainants Post-hearing Initial Br., App. I at PFF49; Shell Post-hearing Reply Br., App. B at Rebuttal to Complainants' PFF49; Iberdrola Post-hearing Reply Br., Rebuttal to Complainants' PFF49. Staff did not respond to Complainants' PFF49, which constitutes an admission. *See Revised Order Adopting Rules for the Conduct of the Hearing*, at P 23 (October 22, 2015) ("Proposed findings of fact and conclusions of law not objected to or specifically rebutted shall be deemed to have been admitted.").

[756] Ex. CAL-604 at 18 (fig.2) (Goldberg Direct).

386. As the figure shows, spot prices in California exceeded $100/MWh only once prior to May 2000, in August of 1997.[757] After the Crisis, the market settled down to its longstanding norm. The Crisis period was unusual even for California, a state that is famously prone to human and natural disasters of every kind—droughts, wildfires, mudslides, earthquakes, floods, economic dislocations, riots, and, of course, traffic jams. None of those disasters ever had the impact on historical energy prices that the manipulative actions of a few energy traders had during the Crisis. As all parties indisputably admit, the sheer uniqueness of the Crisis in history is enough of an "extraordinary circumstance" to warrant the "unequivocal public necessity" of overcoming the *Mobile-Sierra-Morgan Stanley* presumption and scrutinizing the long term contracts made during that period for justness and reasonableness.

b. The Public Interest

387. Finally, *Morgan Stanley* makes a point about what is in the public interest to do in this case. The late Justice Antonin Scalia, writing for the majority, said:

> Markets are not perfect, and one of the reasons that parties enter into wholesale-power contracts is precisely to hedge against the volatility that market imperfections produce. That is why one of the Commission's responses to the energy crisis was to remove regulatory barriers to long term contracts. It would be a perverse rule that rendered contracts less likely to be enforced when there is volatility in the market. … By enabling sophisticated parties who weathered market turmoil by entering long-term contracts to renounce those contracts once the storm has passed, the Ninth Circuit's holding would reduce the incentive to conclude such contracts in the future. Such a rule has no support in our case law and plainly undermines the role of contracts in the FPA's statutory scheme.[758]

388. This encapsulation of the purpose behind the *Mobile-Sierra-Morgan Stanley* doctrine must be kept in mind when determining the fate of these contracts. The State of California's sense of "buyer's remorse,"[759] which set in only seven months after these contracts were signed, must be soberly weighed against the enforceable bond that they represent. Indeed, it is notable that the Shell contract contains a clause that prohibits either contracting party from "exercis[ing] any of its respective rights under Section 205

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[757] *Id*. at 17:4-5.

[758] *Morgan Stanley*, 554 U.S. at 547 (emphasis in original).

[759] *Id*. at 541 ("After the crisis had passed, buyer's remorse set in and [the California Parties] asked FERC to modify the contracts.").

or Section 206 of the Federal Power Act to challenge or seek to modify any of the rates or other terms and conditions of this Agreement," an obvious reason why only state agencies, not contracting-party CDWR itself, are the Complainants in this proceeding.[760] Clearly, the State has taken action here in response to intense public outrage.

389. It is that public outrage, however, that the FPA empowers the Commission to embody in formulating a just remedy for the extraordinary circumstances presented here. The public outrage is precisely why the contracts at issue are not entitled to the *Mobile-Sierra-Morgan Stanley* presumption of justness and reasonableness. As much as the facts show that both CDWR and Shell had at their command armies of advisors and consultants to assist them in arranging these long term contracts, it would be too kind to call either of them "sophisticated parties who weathered market turmoil," to use the late Justice Scalia's words. Neither the State nor the Respondents come to this forum with clean hands. They may have had a lot of sophisticated advice and counsel, but in the end they faced an emergency that they had never seen before and could not cope with. As a result, the public was clearly, palpably, seriously harmed.[761] "[T]he *Mobile-Sierra* doctrine does not overlook" the interests of consumers; indeed, "it is framed with a view to their protection."[762] Hence, these contracts do not deserve a cloak of sanctity *just* because they are contracts.

VI. Conclusion

390. For the reasons set forth above and the findings of fact set forth below, it is the determination of this Initial Decision that (a) Iberdrola is a proper party in this proceeding; and (b) the *Mobile-Sierra-Morgan Stanley* presumption of the justness and reasonableness of a bilateral contract does not apply to the long term contract dated

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[760] Ex. CAL-31 § 10.17 (CDWR-Shell Contract); Tr. 2717:15-2718:10 (Watkiss Closing Arg.). This clause, similar to clauses in other long term contracts that CDWR executed during the Crisis Period, was set aside by the Commission early in this proceeding. *See CPUC v. Sellers of Long-Term Contracts*, 99 FERC ¶ 61,087, at 61,382-83 (2002).

[761] Ex. CAL-241 at 65:1-7 (Florio Direct) ("Table 5 shows that the rates consume[r]s paid for power delivered under the Shell Contract in 2001-2003 were four to six times higher than what competitive rates would have been once the market dysfunction ended. The rates consumers paid for power delivered under the Iberdrola Contract were two to three times higher in almost every year compared to what the competitive rate would have been once the market dysfunction ended (the multiple is 1.9 for 2009)." (emphasis in original)).

[762] *NRG Power Mktg., LLC v. Me. Pub. Utils. Comm'n*, 558 U.S. 165, 175 (2010).

May 24, 2001 between Shell and CDWR, nor does it apply to the long term contract dated July 6, 2001 between Iberdrola and CDWR.

FINDINGS OF FACT

I. Whether Iberdrola Should Be a Party in this Proceeding?

FF 1. PacifiCorp Power Marketing, Inc. was incorporated in 1995 as a power marketer subsidiary of PacifiCorp, a Pacific Northwest load-serving entity. Ex. CAL-285 at n.3; *PacifiCorp Power Marketing, Inc.*, 74 FERC ¶ 61,139 (1996).

FF 2. In 1999, PacifiCorp was acquired by Scottish Power. Ex. CAL-285 at n.3; PacifiCorp, 87 FERC ¶ 61,288 (1999); Ex. CAL-300 at C1-C2.

FF 3. PacifiCorp remained a parent of PacifiCorp Power Marketing, Inc. until, by a FERC order issued June 19, 2001, PacifiCorp became an affiliate of PacifiCorp Power Marketing, Inc. under the common ownership of Scottish Power. Ex. CAL-285 at n.3; *PacifiCorp*, 95 FERC ¶ 61,417 (2001); Tr. 2338:25-2339:6 (Hudgens).

FF 4. In 2007, Iberdrola S.A. acquired Scottish Power. Tr. 2339:6-8 (Hudgens).

FF 5. Since 2007, Iberdrola's ultimate parent has been Iberdrola S.A., a Spanish company with corporate offices in Madrid and Bilboa, Spain. Tr. 2339:7-23 (Hudgens).

FF 6. Negotiations between Iberdrola and CDWR began on January 24, 2001 and ended with execution of the contract on July 6, 2001. Ex. CAL-210 at 16:12-17:1 (Hart Direct); Ex. CAL-41 (Iberdrola Contract).

FF 7. When the negotiations between Ibderdrola and CDWR concluded, the final deal provided, inter alia, for Iberdrola to deliver to CDWR: (i) 150 MW of 7x24 firm energy (that is, delivered seven days per week, 24 hours per day) at $70/MWh from July 1, 2001 through June 30, 2002; and (ii) 200 MW at $70/MWh from July 1, 2002 through December 31, 2002. Ex. IB-200 at 12:1-17 (Harlan Answering); Ex. CAL-210 at 18:10-15 (Hart Direct); Ex. CAL-41 (Iberdrola Contract).

FF 8. Iberdrola was required under the contract to deliver to CDWR 200 MW from January 1, 2003 through June 30, 2004 and 300 MW from July 1, 2004 through the end of the contract term on June 30, 2011, priced according to a "tolling" arrangement. Ex. IB-200 at 12:1-17 (Harlan Answering); Ex. CAL-210 at 18:10-15 (Hart Direct); Ex. CAL-41 (Iberdrola Contract).

FF 9. Iberdrola provided CDWR dispatching rights to its Klamath cogeneration facility. Ex. IB-200 at 13:1-12 (Harlan Answering).

FF 10. As of the date of execution of the contract between Iberdrola and CDWR, forward prices in the CAISO SP-15 zone stood at approximately $50/MWh for 2002 and 2003 deliveries. Ex. CAL-604 at 25, fig.5 (Goldberg Direct).

FF 11. Spot electric prices in the SP-15 zone as of the execution date of the contract between Ibderdrola and CDWR stood at approximately $97/MWh. Ex. CAL-604 at 25, fig.5 (Goldberg Direct).

FF 12. Immediately before the onset of the Western Energy Crisis, the wholesale spot electric price in California averaged $34/MWh, and after it was over, the spot price averaged $32/MWh. Ex. CAL-90 at 15:10-21 (Stoft Direct).

FF 13. Although spot prices declined in June of 2001, the impacts of manipulation by PacifiCorp and other suppliers during the Crisis lingered in forward contracts through the entire negotiation of the Iberdrola Contract. Ex. CAL-717 at 160:1-5.

FF 14. On June 20, 2001, the date that the Commission's West-wide price mitigation plan went into effect, the "non-reserve deficiency" price cap for spot market sales, which was also the maximum price for negotiated bilateral contracts imposed by the Commission's plan, stood at $91.87/MWh, and remained at that level through December 19, 2001. This price cap represented 85 percent of the highest hourly Stage 1 "reserve deficiency" price declared on May 31, 2001 of $108/MWh, as declared by the Commission's plan. Ex. CAL-227 at 16 & n.5 (CAISO, Third Annual Report on Market Issues and Performance (January 2002)).

II. Whether the *Mobile-Sierra-Morgan Stanley* Rule Applies to the Contracts at Issue?

FF 15. The California Energy Crisis was unprecedented in the modern history of the U.S. electric industry in terms of its severity, duration, and consumer impacts. Ex. CAL-241 at 4:9-10.

A. Whether Respondent Sellers Engaged in Unlawful Market Activity That Had a Direct Effect on the Negotiations of the Contracts At Issue, Such That the *Mobile-Sierra-Morgan Stanley* Rule Is Avoided?

FF 16. The average wholesale price in the spot market in January 2001 reached $320/MWh, with prices in on-peak hours frequently exceeding $400/MWh, and at times exceeding $1,000/MWh. Ex. CAL-200 at 5:5-8 (Nichols Direct).

FF 17. Prior to 1998, California's electricity markets operated under a traditional franchised monopoly system with the three major IOUs providing power, transmission, and distribution to most of the State's electricity consumers. Ex. CAL-285 at 13:13-15.

FF 18. The IOUs owned much of the generation needed to serve their customers, but because of seasonal load and resource diversity in the West, the IOUs also purchased significant amounts of energy from outside California, and the western transmission grid was developed to facilitate large, seasonal, northerly or southerly power flows. Ex. CAL-285 at 13:15-16, 14:1-4.

FF 19. In 1998, for example, California generated 205,246 GWh, of which 6,236 GWh was exported, leaving 199,010 GWh for local consumption. Imports were 51,125 GWh, or approximately 20% of the total consumption of 250,135 GWh. Ex. CAL-285 at n.9; Ex. CAL-291.

FF 20. Utilities in the PNW generally had winter-peaking loads and significant amounts of hydroelectric power that was abundant in the spring and summer. Loads faced by utilities in the Southwest were strongly summer-peaking and hydroelectric resources were scarce. Thus electricity sourced from hydro generally flowed north to south in the summer while fossil-generated power went south to north in winter. Ex. CAL-285 at n.7.

FF 21. In 1998, legislation took effect to restructure California's electric power markets to facilitate competition for the generation and sale of electric power. The legislation required the IOUs to divest most of their generation and to purchase from newly created FERC-regulated PX and ISO auction markets substantially all of the electric energy and certain Ancillary Services that the IOUs needed to serve their retail customers. Ex. CAL-285 at 14:5-17.

FF 22. The PX was created to function as California's principal power market. It operated both Day Ahead and Hour Ahead single-price auction markets that established a single market-clearing price that all sellers received regardless of the prices at which they offered (bid) their power for sale. The PX Day Ahead and Hour Ahead markets were intended to supply virtually all of the electric power needed to meet projected electric power demand. Once the PX had cleared the markets and identified sellers and buyers, it submitted schedules to the ISO reflecting the flow of power from sellers to buyers. Ex. CAL-285 at 19:1–20:6.

FF 23. The ISO was created as the entity responsible for operating and maintaining California's electric transmission grid. This included resolving transmission congestion and purchasing Ancillary Services and imbalance energy to maintain system reliability. The ISO accepted the schedules prepared by the PX and then procured any electric power needed to make adjustments in Real Time to ensure that actual supply and demand "balanced" and the electric grid operated properly and safely. To meet these obligations, the ISO operated wholesale auction markets for Real Time energy purchases and Ancillary Services, which, like the PX, set a single market-clearing price based on seller's bids. Ex. CAL-285 at 20:7-18; *See* Ex. CAL-289 at § 2.5 (formulas for determining market clearing price in ISO auctions) and Appendix A, Master Definitions Supplement ("Market Clearing Price").

FF 24. To the extent the imbalance auction market did not provide sufficient power to balance the grid, the ISO Tariff permitted the ISO to procure emergency electric power in alternative bilateral, OOM transactions. Such supplies were solicited through various methods, such as phone calls to electric power marketers or generators. OOM transactions were contemplated in the ISO Tariff as a backstop to the ISO's auction market. Ex. CAL-285 at 21:6-14 & n.11; Ex. CAL-289 at § 2.3.5.1.5; *Pub. Utils. Comm'n of Cal. v. FERC*, 462 F.3d 1027, 1052-1053 (9th Cir. 2006).

FF 25. The part of the ISO south of a major transmission link called Path 15 was designated SP-15 (south of Path 15), while the zone north of the link was designated NP-15 (north of Path 15). Because the transmission link between southern and northern California was often congested (the lines could not transfer any more power between the two regions), the ISO was effectively separated into two electrical systems or markets, each with its own price. Ex. CAL-285 at 23:5-12, n.14.

FF 26. The first two years of the PX's and ISO's operation in the California electricity markets worked reasonably well. Even during a few episodes when prices were elevated they rarely exceeded $100/MWh, a very high price for the typical gas-fired generating unit on the margin. Ex. CAL-285 at 22:11-16, n.12.

FF 27. The Crisis affecting Spot Market prices began in May 2000 and lasted through June 2001. Its duration and severity is shown in Figure 4 of Mr. Taylor's Direct Testimony Part 1, Ex. CAL-285 at 27. Figure 4 shows peak prices for trades in California (NP-15 and SP-15) along with peak prices in nearby market trading hubs in the PNW (COB) and in the Southwest (PV). Prices in all western power markets both before May 2000 and after the June 2001 were well below $100/MWh. Ex. CAL-285 at 27.

FF 28. During the Crisis the spot price averaged $201/MWh. Ex. CAL-90 at 15:10-21 (Stoft Direct); Ex. CAL-604 at 17, fig.1 (Goldberg Direct).

FF 29. During the 2000-2001 Crisis, Spot Market prices rose to nearly $600 per MWh. Ex. CAL-241 at 7:19-8:1, fig.2; Ex. CAL-246.

FF 30. Figure 4 of Ex. CAL-285 shows that prices in the western markets moved together, and during the Crisis, all of the western markets experienced the same periods of escalating prices. This is so because the transmission system in the West allows suppliers to choose to sell anywhere in the region, so that western power markets are closely linked. In the absence of transmission constraints, power flows from low priced areas to those with higher prices until prices equalize net of transmission costs. Ex. CAL-285 at 25:7-26:10, 28:1-5, fig.4.

FF 31. During the first week of May 2000, Real Time prices in the southern zone of the ISO rose in some hours to the then-applicable price cap of $750/MWh. Ex. CAL-285 at 23:5-8, fig.2.

FF 32. In late May 2000 prices in the southern zone of the ISO again hit the $750 cap, and did so again in mid-June and in late June 2000, with increasing frequency of pricing at the cap. Ex. CAL-285 at 23:12-24:2, fig.2.

FF 33. The prices in the northern zone of the ISO also spiked to the price cap in late May and mid and late June 2000. Ex. CAL-285 at 24:3-5, fig.3.

FF 34. In early July 2000, the ISO lowered the price cap from $750/MWh to $500/MWh, and prices fell, with peaks generally below $100/MWh. Prices spiked again in both the north and south in the third week in July 2000, however, and remained high until the end of the month, regularly hitting the cap. The ISO again lowered the ISO price cap to $250/MWh on August 7, 2000. From this point through the beginning of October 2000, prices regularly hit the cap in both regions. Ex. CAL-285 at 24:5-25:5 & fig.3.

FF 35. In August 2000 San Diego Gas & Electric Company, one of the California IOUs, filed a complaint with the Commission seeking an investigation into the causes of the extraordinarily high prices in the ISO and PX markets and imposition of a price cap; the Commission instituted its own investigation during the same time period. Ex. CAL-285 at 29:4-10; Ex. CAL-292 at 11.

FF 36. Following the May through early October 2000 period in which price increases reached $400/MWh to over $600/MWh, prices in all of the western markets fell briefly in mid-October and the first part of November 2000. Ex. CAL-285 at 28:6-9, fig.4.

FF 37. At the time it issued the November 1, 2000 order the Commission did not then have the evidence of market manipulation that later surfaced in the Enron Memos. Ex. CAL-285 at 30:12-13; Ex. CAL-302 at 2-22 (Enron Memos).

FF 38. The Commission lifted the hard price cap in the ISO markets in an order issued December 8, 2000, and put into place a soft cap, under which bids below the cap were considered in determining the market clearing price, but bids above the cap were taken as necessary to satisfy demand and paid as bid but did not raise the market clearing price that all sellers would be paid. Ex. CAL-285 at 30:16-22, n.23; Ex. CAL-294.

FF 39. On December 15, 2000, the Commission issued another order adopting other remedies it had proposed in the November 1, 2000 order, including elimination of the requirement that the IOUs make all of their purchases and sales in the PX. Ex. CAL-285 at 33:14-16; Ex. CAL-293.

FF 40. Through late December 2000 prices surged again, approaching an average of $600/MWh. Ex. CAL-285 at 28:9-11, fig.4.

FF 41. After a brief decline in late December 2000, prices began to rise again in early January, 2001 and continued throughout the Negotiation Period at extraordinarily high levels through June 2001. Ex. CAL-285 at 28:11-29:3, fig.4.

FF 42. The squeeze created by frozen retail rates and the huge run-up in wholesale prices drove PG&E and SCE to the brink of bankruptcy and ruined their credit ratings, leaving them with dwindling ability to pay for purchases from the PX and ISO. PG&E, in fact, did declare bankruptcy. Ex. CAL-285 at 34:3-6, n.28.

FF 43. Because PG&E and SCE, the PX's major purchasers, were unable to pay their bills, and because PX sales volumes plummeted as a result of the Commission's December 15, 2000 Order relieving the IOUs of their obligation to make all of their purchases and sales in the PX, the PX was unable to function effectively and ceased operations by the end of January 2001. Ex. CAL-285 at 34:6-9; Ex. CAL-293 at 84 (elimination of mandatory PX Buy-Sell requirement).

FF 44. It was the collapse of the PX market and the IOU's insolvency that necessitated the State's creation of CDWR's CERS division as the buyer of last resort, so that California's consumers could continue to have access to electric power. Ex. CAL-285 at 70:3-16.

FF 45. CDWR assumed its role as purchaser of last resort for the ISO on January 17, 2001 in the midst of two days of rolling blackouts. Ex. CAL-285 at 8:7-8, 72:11-12, n.75.

FF 46. CDWR's initial procurement efforts were financed by advances from California's General Fund to the Electric Power Fund created by Senate Bill 7X, which passed on January 19, 2001. Ex. IB-246 at 14:15-15:8; Tr. 621:6-623:2; Ex. CAL-688 at 24.

FF 47. CDWR was tasked at the height of the Western Energy Crisis, by a Proclamation of a State of Emergency issued by Governor Gray Davis on January 17, 2001, to "enter into contracts and arrangements for the purchase and sale of electric power . . . as expeditiously as possible" in order to meet the "Net Short" energy requirements of the then failing California IOUs, PG&E, SCE, and SDG&E. Ex. CAL-12 at 4:4-16 (Hart Direct); Ex. CAL-13; Ex. CAL-200 at 4:3-7 (Nichols Direct); Ex. CAL-12 at 4:4-6:1 (Hart Direct); Ex. CAL-13.

FF 48. The "Net Short" energy requirements of the IOUs consisted of the difference between (1) the total energy requirements of the IOUs' retail and end use customers, and (2) the sum of the energy generated by IOU-owned electric generating plants, qualifying facilities (QFs) under contract with the IOUs, and existing bilateral contracts between the IOUs and other suppliers. Ex. CAL-200 at 4:15-20 (Nichols Direct).

FF 49. Initially, CDWR had no long-term supply contracts, so the entire Net Short of the IOUs had to be procured on a short-term, largely Spot Market basis, much of it in Real Time. This meant racing the clock each hour to procure the energy that was needed only an hour or two later to prevent the system from blacking out. Ex. CAL-285 at 73:1-7.

FF 50. In purchasing so much of the Net Short so close to the hour of delivery, CDWR was forced to rely heavily upon the PNW for supply, particularly in Real Time as the time for dispatch approached and CDWR sought additional supply from outside the ISO at COB, because most of the generation in the ISO was located in the southern zone but congestion often isolated the northern zone of the California grid from the southern zone. Real Time purchases in the north, virtually all at COB, were at consistently higher prices

than in the south, and at consistently higher volumes than in the south. Ex. CAL-285 at 74:10-78:7, tbl.3 (Frequency of Congestion), fig.7 (NP-15/SP-15 Price Differential), fig.8 (NP-15/SP-15 Volume Differential).

FF 51. Following an order issued by the Commission on June 19, 2001, Spot Market prices declined and returned to more normal levels. Ex. CAL-285 at 85:12-86:13, fig.4.

FF 52. The Commission's June 19, 2001 order: (a) imposed a maximum price based upon the marginal cost of the least efficient gas-fired generation that was dispatched in the ISO, and covered all Spot Market transactions in the entire western power grid (not just those in the ISO Real Time market as had been proposed in an April 26, 2001 order) for all hours (not just those in which there were reserve deficiencies, as proposed in the April 26, 2001 order); and (b) imposed a west-wide "must offer" obligation. Ex. CAL-285 at 85:12-86:13; Ex. CAL-745 (June 19 Order).

FF 53. Widespread market manipulation occurred during the Summer Period and contributed to the extraordinary increase in prices in the ISO and PX markets, as the Commission has concluded in Opinion No. 536 issued in 2014, and in other orders issued after the Crisis ended. Ex. CAL-285 at 89:3-17; *San Diego Gas & Elec. Co. v. Sellers of Energy and Ancillary Services Into Markets Operated by the California Independent System Operator Corporation and the California Power Exchange*, 149 FERC ¶ 61,116 (2014) (Opinion No. 536), *order on reh'g*, 153 FERC ¶ 61,144 (2015).

FF 54. Iberdrola's parent PacifiCorp facilitated market manipulators who engaged in False Export and Circular Scheduling by providing fraudulent Parking services and buy/sell arrangements. Ex. CAL-285 at 89:14-17; Ex. CAL-319 at 90:4-92:6, 153:7-161:9; Ex. CAL-374A, B; Ex. CAL-406; Ex. CAL-409; Ex. CAL-411Ai-v, B.

FF 55. Videos and transcripts in exhibits CAL-242A, B, CAL-243A, B, CAL-244A, B from ABC news programs demonstrate the serious impacts of the 2000-2001 Crisis on Californians at that time. Ex. CAL-241 at 4:15-5:7; Ex. CAL-242A, B; Ex. CAL-243A, B; Ex. CAL-244A, B.

FF 56. The skyrocketing wholesale Spot Market prices and blackouts during the Crisis were caused in large part by market manipulation by sellers, including Shell and PacifiCorp. Ex. CAL-241 at 5:11-14.

FF 57. Spiking Spot Market prices inflicted serious personal and economic hardships on SDG&E customers. Ex. CAL-241 at 10:4-11:17; Ex. CAL-247 at 12, 15.

FF 58. Stories from San Diego ratepayers communicated to the CPUC at hearings and through letters demonstrated the human and economic hardships caused by the escalation in retail energy bills in the summer of 2000. Ex. CAL-241 at 10:4-11:17; Ex. CAL-247 at 12-16.

FF 59. The public outcry and stories of hardship of San Diego ratepayers demonstrated to California's policy makers that consumers could not endure a full pass-through of increased wholesale energy prices during the Crisis. Ex. CAL-241 at 12:3-9.

FF 60. In late August 2000, the California Legislature enacted AB 265, rolling back SDG&E rates to pre-Crisis levels for residential, small commercial and street lighting customers. Ex. CAL-241 at 11:21-12:1; Cal. Pub. Util. Code Section 332.1 (added by Stats. 2000, ch. 328).

FF 61. CPUC implemented a rate cap of 6.5 cents per kWh for SDG&E customers retroactive to June 1, 2000. Ex. CAL-241 at 12:2-3; *CPUC Opinion Expanding the Rate Stabilization Plan for San Diego Gas and Electric Co.* (2000) D.00-09-040.

FF 62. In January 2001, the CPUC raised retail rates for Pacific Gas and Electric Company (PG&E) and Southern California Edison Company (SCE) by one cent per kWh to partially offset spiking wholesale energy costs. Ex. CAL-241 at 14:26-27; CPUC Interim Opinion Regarding Emergency Requests for Rate Increases (2001) D.01-01-018, at 1-2.

FF 63. On March 22, 2001, the ISO issued a 2001 Summer Assessment that warned: "California is facing an electricity shortage of unprecedented proportions for the summer of 2001." Ex. CAL-241 at 22:5-7; Ex. CAL-253 at 4.

FF 64. The 2001 ISO Summer Assessment forecast a peak demand deficiency ranging from a high of 3,647 MW in June to a low of 666 MW in September and indicated that California would experience rolling blackouts. Ex. CAL-241 at 22:8-11; Ex. CAL-253 at 4.

FF 65. The danger of ongoing system emergencies and blackouts to the health and economic welfare of Californians put pressure on CDWR to execute long-term contracts

in advance of Summer 2001. Ex. CAL-241 at 28:3-14, 29:3-16; Ex. CAL-242A, B; Ex. CAL-243A, B; Ex. CAL-72 at 7; Ex. CAL-251 at 8-9, 13-14.

FF 66. A Stage One Emergency would be declared by the ISO when operating reserves fell below 7% of load. Ex. CAL-513 at 84:12-17.

FF 67. A Stage Two Emergency would be declared by the ISO when operating reserves fell below 5% of load. Ex. CAL-513 at 85:1-4.

FF 68. A Stage Three Emergency would be declared by the ISO when operating reserves were forecast to be less than the single largest resource online. In the ISO's hierarchy of stage emergency conditions, Stage Three was the most serious emergency condition, denoting that the system had curtailed all interruptible loads and was running with reserves insufficient to cover the loss of a large generating unit. Any loss of such generation would cause the system to collapse. Ex. CAL-513 at 85:5-9; Ex. CAL-285 at 72:13-73:7 & n.76.

FF 69. During 2001 there were 38 Stage Three Emergencies declared by the ISO. Ex. CAL-594 at 1.

FF 70. California was in a state of emergency for 31 consecutive days from January 18, 2001 to February 16, 2001. Ex. CAL-241 at 17:3-6.

FF 71. From May 2000 through July 2001, the ISO issued 125 Stage One Emergencies and 101 Stage Two Emergencies, compared to just eleven Stage One Emergencies and six Stage Two Emergencies in 1998 to 1999 combined. Ex. CAL-241 at 7:13-16, 8:2, (Figure 1); Ex. CAL-245 at 1, 3-7.

FF 72. From 2002 through 2014, the ISO issued nine Stage One Emergencies, four Stage Two Emergencies, and zero Stage Three Emergencies. Ex. CAL-245 at 1.

FF 73. All of the thirty-nine Stage Three Emergencies the ISO has issued during sixteen years of operations, from 1998 through 2014, occurred during the 2000-2001 Crisis. Ex. CAL-241 at 7:9-12, 8:2 (Figure 1); Ex. CAL-245 at 1, 3-7.

FF 74. If after implementing other emergency procedures the ISO is unable to procure sufficient power, service is cut to some customers, producing partial or rotating blackouts. Ex. CAL-513 at 85:10-12.

FF 75. By implementing rolling blackouts, the ISO can spread the impact of blackouts among customers and reduce the duration of blackouts for particular groups of customers. Ex. CAL-513 at 85:12-16.

FF 76. Blackouts impose direct and indirect economic costs on consumers. Ex. CAL-513 at 83:8.

FF 77. On March 22, 2001, the ISO predicted that blackouts would continue into the Summer 2001. Ex. CAL-513 at 87:9-14; Ex. CAL-254.

FF 78. On March 24, 2001, California Governor Gray Davis issued a press release announcing a plan to help neighborhoods and businesses better prepare for blackouts. Ex. CAL-241 at 21:14-16; Ex. CAL-252.

FF 79. Demand in California typically peaks during the summer. Ex. CAL-241 at 5:9-11; Ex. CAL-250.

FF 80. California officials and experts were preparing for the potential of widespread blackouts during the summer of 2001. Ex. CAL-241 at 20:5-21:12; Ex. CAL-242A, B; Ex. CAL-243A, B; Ex. CAL-244A, B; Ex. CAL-251; Ex. CAL-252.

FF 81. On May 15, 2001, the North American Electric Reliability Council (NERC) issued a special report predicting 260 hours of rotating blackouts in the ISO during the summer, estimating that "the [ISO] will most likely experience supply deficiencies in the range of about 4,500 and 5,500 MW at the time of peak demand for each summer month (2,000 – 4,000 MW more than the [ISO] projections, depending upon the month selected)." Ex. CAL-241 at 22:16-20; Ex. CAL-254 at 3-4, 11-12; Ex. CAL-255 at 3; Ex. CAL-256 at 3.

FF 82. NERC warned that the interruptible demand program in Northern California was exhausted in early 2001 because ISO operators had to call on interruptible customers to counteract the high unavailability of generating resources during the winter of 2000-2001. Ex. CAL-241 at 24:19-25:2; Ex. CAL-254 at 5.

FF 83. Initially, CDWR obtained almost all of the power it needed by buying in the Spot Market where average wholesale energy costs had reached 32¢/kWh ($320 per MWh) in January 2001, with costs in on-peak hours frequently exceeding 40¢/kWh or $400/MWh,

and at times exceeding $1000/MWh. Ex. CAL-51 at 7:19-23, 21:10-13; Ex. CAL-200 at 5:5-8; Ex. CAL-12 at 7:3-9.

FF 84. The average Spot Market price in January 2001 was approximately ten times the Spot Market price of one year earlier. Ex. CAL-51 at 7:23-24; Ex. CAL-56 at 2; Ex. CAL-200 at 5:8-10.

FF 85. In order to keep the lights in in California, CDWR had to procure for each day the Net Short, the 8,000 to 15,000 MWhs of unmet energy that the IOUs were no longer able to purchase to serve their customers. Ex. CAL-222 at 5:4 -5:8; Ex. CAL-78 at 16:4-7.

FF 86. From January through May 2001, CDWR spent $4.89 billion for Spot Market power to meet the IOUs' Net Short. Ex. CAL-200 at 37:15-16.

FF 87. On January 23, 2001, CDWR issued an initial request for bids (RFB) soliciting offers for forward energy purchases. Ex. CAL-66; Tr. 220:3-6 (Nichols); Ex. CAL-200 at 8:14-15; Ex. CAL-66.

FF 88. After California had suffered 16 straight days of Stage 3 Emergencies, on February 1, 2001, the California Legislature enacted Assembly Bill 1 of the 2001-2002 First Extraordinary Session (AB 1X), which authorized and required CDWR to purchase power, including under long term contracts, for sale to retail end-users served by California's electrical corporations. AB 1X directed CDWR to achieve an overall portfolio of contracts for energy resulting in reliable service at the lowest possible price per kilowatt-hour. Ex. CAL-15; Ex. CAL-12 at 5:12-16; Ex. CAL-142.; Ex. CAL-51 at 7:8-8:8.

FF 89. CDWR issued a second RFB on February 2, 2001. Ex. CAL-200 at 8:14-15; Ex. CAL-67.

FF 90. In the Spring of 2001, CDWR created a Contracts Committee to review and make recommendations regarding the long term contract process which included both those dealing with the negotiations directly as well as those in other aspects of the operations, including Spot Market procurement. Ex. CAL-200 at 10:11-14.

FF 91. During the Crisis, CDWR entered a portfolio of over 50 long-term contracts in order to reduce the State's reliance on the Spot Market. Ex. CAL-12 at 10:11-16; Tr. 388:23-389:2 (Hart); Ex. CAL-50.

FF 92. CDWR entered into the Shell and Iberdrola Contracts because of unreliability and high prices in the Spot Market. Ex. CAL-673 at 16:17-17:6.

FF 93. CDWR would not have entered into the Long-Term Contracts had the Spot Market not been dysfunctional. Ex. CAL-12 at 10:21-25.

FF 94. The prices CDWR accepted in the Shell and Iberdrola Contracts were higher than compared to what prices would have been if the market was not dysfunctional. Tr. 397:11-398:20, 526:8-13 (Hart).

FF 95. CDWR retained Navigant on January 20, 2001 to assist it in the process of establishing and running the State of California's power purchase program. Ex. CAL-51 at 3:9-12; Ex. CAL-200 at 2:9-11.

FF 96. Neither the long-term contracts signed by CDWR before June 19, 2001 nor the Commission's June 19, 2001 Order were sure-fire solutions to the problems in the California energy markets. Ex. CAL-717 at 160:5-8.

FF 97. FERC calculated a set of competitive electricity prices, MMCPs, for each hour and 10-minute interval of the Refund Period. Ex. CAL-268 at 22:5-12.

FF 98. The MMCP is based on the actual units dispatched in the California organized electric markets in each hour. Ex. CAL-268 at 22:17-18; Ex. CAL-281; Tr. 1754:10-1757:6 (Pirrong).

FF 99. The MMCP was applied as a cap in each hour and the Commission ordered that amounts charged above the MMCP cap for sales in the ISO and PX markets be refunded to customers. Ex. CAL-268 at 24:2-6; *San Diego Gas & Elec.*, 99 FERC 61,160 (2002).

FF 100. Overall spot prices in western electricity markets were above competitive levels during the Negotiation Period. Ex. CAL-513 at 6:16-18.

FF 101. Shell's market manipulation and tariff violations directly contributed to the uncompetitive Spot Market prices paid by CDWR during the Negotiation Period. Ex. CAL-764 at 10:3-11:12.

FF 102. Market supply and demand fundamentals alone do not explain the pattern of very high prices seen in sales to CDWR during the Negotiation Period. Ex. CAL-764 at 3:16-18, 35:7-36:16, 51:1-7.

1. Shell Contract

a. Unlawful Spot Market Activities

FF 103. On every day that an audiotape is missing on which Shell made sales to CDWR (i.e., May 18-24 and May 30-31, 2001), Shell engaged in unspecified unlawful activity, and each such unlawful activity had a price effect in Spot Market. *CPUC v Sellers of Long-Term Contracts*, Order Memorializing November 10, 2015 Bench Ruling on Motion to Compel Production of Audio Recordings and Request for Sanctions, November 13, 2015, at P 10.

FF 104. Seller manipulative behavior during the Crisis can be classified into four categories: (1) Anomalous Bidding (including economic withholding); (2) Fraudulent sales into the ISO Real Time energy and Ancillary Services markets, including: (a) False Export, often abetted through illicit Parking, (b) False Load, and (c) Phantom Ancillary Services; (3) Fraudulent collection of congestion revenues; and (4) Other related market manipulation schemes, including manipulation of the natural gas and futures markets. Variants of these behaviors were described in the Enron Memos with names like Ricochet, Fat Boy, Death Star and Get Shorty. Other sellers adopted, adapted and used them. Ex. CAL-285 at 35:1-12.

FF 105. Anomalous Bids are bids that depart from normal competitive patterns. There were three types of anomalous bids that sellers employed during the Crisis in the ISO and PX markets, and all violated provisions of the PX and ISO tariffs. The purpose of all forms of Anomalous Bidding was to elevate prices in the relevant markets. Sellers bid some portion of the supply they offered at prices far in excess of incremental generation costs, thus deviating from the competitive norm. Ex. CAL-285 at 37:10-38:2; Ex. CAL-733 at PP 91-107 (Opinion No. 536).

FF 106. False export, false load, anomalous bidding, phantom ancillary services, and circular scheduling have been determined to be violations of the market monitoring and information protocol (MMIP) of the CAISO organized market tariff. *San Diego Gas & Elec. Co. v. Sellers of Energy & Ancillary Servs.*, 149 FERC ¶ 61,116, at PP 91, 94, 99, 120, 170 (2014) (Opinion No. 536).

FF 107. The Commission has never found that circular scheduling, sales of phantom ancillary services, shorting generation, or submission of uncompliant quarterly reports had any effect on spot market prices in California during the crisis period. Opinion No. 536 at 186.

FF 108. The Commission has never found that Coral engaged in shorting generation. *See* Ex. SNA-230 at 43:1-3.

FF 109. Type 1 Anomalous Bids featured a portion of the bid that was offered at extremely high prices that were well in excess of marginal cost. If accepted, they had the effect of elevating the market clearing price for all sales made in the same bidding hour. Ex. CAL-285 at 38:3-6; Ex. CAL-733 at P 58 (Opinion No. 536).

FF 110. Type 2 Anomalous Bids were bids above marginal cost offered in conjunction with some other manipulative scheme such as False Export or False Load (schemes discussed below), designed to place energy into the Real Time market fraudulently. Such schemes effectively offered energy into the Real Time market on a "price taker" basis. As "price takers," the suppliers engaging in such schemes had an interest in achieving the highest possible Real Time prices, and, hence, had an incentive to elevate these prices through Anomalous Bids. The bidding effectively made the seller a "price-maker" rather than a "price-taker." Ex. CAL-285 at 38:7-15; Ex. CAL-733 at P 60 (Opinion No. 536).

FF 111. Type 3 Anomalous Bids were bids that were priced far above marginal costs that the seller never expected to be accepted, and thus constituted economic withholding. Ex. CAL-285 at 39:1-3; Ex. CAL-733 at P 63 (Opinion No. 536).

FF 112. False Export, False Load, and Phantom Ancillary Services were used to make fraudulent sales into the ISO Real Time energy and Ancillary Services markets because during the Crisis, prices were consistently higher in the Real Time market than they were in the Day Ahead market. Demand was extremely inelastic in the Real Time market, so it was easier for suppliers to elevate prices there through withholding or Anomalous Bidding. Unlike what one would expect in competitive circumstances in which a Day Ahead/Real Time price differential would not persist over a long period, Real Time prices were consistently higher, providing sellers with an incentive to find ways to avoid the reliability-related requirements of the ISO Tariff that limited access to the Real Time market. Ex. CAL-285 at 39:9-40:16, fig.5; Ex. CAL-296.

FF 113. In a False Export, which Enron called Ricochet, a seller purchasing or generating power within the ISO would file with the ISO a Day Ahead or Day Of

schedule showing a nominal "export" of power from within the ISO to a recipient with load (that is, a "sink") outside California, that then returned the energy for sale back to the ISO through bids into the Ancillary Services or Real Time (Supplemental) energy market. Ex. CAL-285 at 43:11-21, 46:13-47:5; Ex. CAL-302 at 7-8.

FF 114. False Export consisted of at least two instances of fraudulent conduct: first, a false representation to the ISO through the filing of a schedule that energy generated in California was being exported, and, second, a false representation to the ISO (or later in the Crisis, during the Negotiation Period, to CDWR acting on behalf of the ISO) that the energy was coming from the PNW or some other trading hub outside of the ISO. Ex. CAL-285 at 44:9-14.

FF 115. False Export schedules created fictitious energy resources outside the ISO that could thus be bid back into the Ancillary Services markets or as Supplemental Energy. Both the export schedule and the subsequent "import" were fraudulent. The energy was sourced in the ISO and sunk in the ISO. Ex. CAL-285 at 45:6-10.

FF 116. False Export was facilitated by Parking or laundering transactions. Parking providers were entities, generally control area operators at the interfaces with the ISO such as PacifiCorp, that agreed for a fee (e.g., $5/MWh) to be reported as the purchasers and designated recipients of a marketer such as Shell's exports with the understanding that they would resell and return the energy to the original seller so that the original seller could resell the power back into the ISO, as if it came from outside the ISO. Ex. CAL-285 at 45:12-21; Ex. CAL-374; Tr. 1486:7-1490:23.

FF 117. Parking transactions generally had two components. The first part was a pre-scheduled (e.g., Day Ahead or Hour Ahead) "sale" from the Parking customer to the Parking provider (the "delivery") at a specific location and for certain specified operating hours. The second part was a "re-purchase" of the prescheduled power (the "return") from the Parking provider to the Parking customer closer to the actual operating hour, in amounts that equaled the pre-scheduled volumes in each hour. In some cases, the return leg also may have been arranged on a pre-scheduled (e.g., Day Ahead or Hour Ahead) basis. Typically, the return was at the same location as the source of the sale. Although purportedly different transactions, the putative flows associated with the sale and repurchase were in fact simultaneous and scheduled for the same point in time. So if the delivery leg associated with the sale were scheduled from the ISO control area and the return leg associated with the repurchase were scheduled back into the ISO control area, they effectively canceled out so that no power actually flowed at the intertie (i.e., the

fictitiously scheduled "export" and "import" point), or into or out of the Parking provider's control area. Ex. CAL-285 at 48:5-49:8.

FF 118. Parking activity technically occurred outside the boundaries of the ISO and, although it was clearly fraudulent and meant to facilitate transactions that disrupted California's markets, it was outside the precise letter of the ISO tariff. However, the buy-resale parking transaction that facilitated False Export was fraudulent and thus violated both participants' market based rate authority which carried the implicit obligation not to engage in fraud, deception or misrepresentation. Ex. CAL-285 at 49:13-50:2; Ex. CAL-736 at P 52 (Enron MBR Revocation Order).

FF 119. In False Load, which Enron called "Fat Boy," the seller submitted to the ISO a Day Ahead or Hour Ahead load schedule that intentionally included an amount of load greater than the amount that the seller actually intended to serve. False Load schedules had the effect of increasing scarcity and prices in the PX Day Ahead market and moved the resources illegally to the more easily manipulated ISO Real Time markets, where the seller could cause, and take advantage of, higher prices. Ex. CAL-285 at 51:1-9 Ex. CAL-302 at 2, 7.

FF 120. False Load subverted the ISO's requirement that schedules be balanced (ISO Tariff §2.2.7.2) because in Real Time, the excess MWs that were scheduled to the fictitious load would be delivered and would result in a positive imbalance which was essentially purchased by the ISO and paid the ISO's Real Time ex post price. False Load was a way to fraudulently gain the Real Time price for energy that otherwise could not legitimately have been bid into the Real Time market. Ex. CAL-285 at 51:10-16; Ex. CAL-289 at §2.2.7.2.

FF 121. False Export degraded ISO grid reliability because it reduced operating reserves on a Day Ahead basis and led the ISO to believe mistakenly that the exported energy needed to be replaced through Real Time purchases. Ex. CAL-680 at 18:20-19:11.

FF 122. Executing Enron-style manipulative schemes such as False Export, and False Load, required access to generation, transmission, or load points in the ISO which were not available to pure marketers. Therefore, marketers that employed these schemes sought out and formed alliances with entities that could provide such access. Ex. CAL-285 at 35:13-16.

FF 123. Shell formed alliances with partners that were load serving entities, such as the municipal utilities of the cities of Glendale and Colton, who provided access to load points, transmission and generation and shared in the profits Shell made from

manipulative schemes employed using their facilities. Ex. CAL-285 at 35:16-20; Ex. CAL-480.

FF 124. PacifiCorp, Iberdrola's parent, was a load serving entity with access to generation and transmission that used its facilities to engage in manipulation on its own, and that also charged fees for "Parking" or "laundering" services that facilitated schemes such as False Export and Circular Scheduling for Shell and other marketers. Ex. CAL-285 at 35:16-36:1.

FF 125. Ms. Beth Bowman, Shell's General Manager in charge of its San Diego trading operation, and her direct report Mr. Ed Brown, who was in charge of long term transactions, initiated Shell's alliance arrangements with the cities of Glendale and Colton. Ex. CAL-319 at 21:12-17, 120:1-122:5; Ex. CAL-414; Ex. CAL-426.

FF 126. Shell and Glendale started discussions related to entering into an alliance arrangement in March 2000 and were clearly having detailed strategy discussions before the end of May 2000. Ex. CAL-319 at 21:17-22:1; Ex. CAL-321.

FF 127. Carey Morris, an Enron trader, moved to Shell's San Diego trading operation at the beginning of the Crisis and took on a supervisory role, guiding Shell traders in the same sort of schemes that Enron had perpetrated and bringing along Enron's former municipal utility partners, the cities of Glendale and Colton, California, to carry them out. Ex. CAL-285 at 35:16-20, 55:1-6 (Taylor Direct); Ex. CAL-319 at 25:1-6 (Taylor Direct).

FF 128. Shell executed the formal Marketing Services Agreement (MSA) with Glendale in late July 2000. Ex. CAL-319 at 21:12-13; Ex. CAL-320.

FF 129. Under the Glendale MSA, the parties agreed that Shell would market on Glendale's behalf various specified generation, transmission, and gas supply assets. Shell guaranteed certain minimum revenues to Glendale, and then the parties were to split "Alliance Net Gain" above the minimum at specified rates. Ex. CAL-319 at 22:1-18; Ex. CAL-320 at 1-2.

FF 130. Shell was obligated under the Glendale MSA to market Glendale resources according to a written "Marketing Plan" that was to implement specified and mutually agreed "Marketing Strategies." Ex. CAL-319 at 22:5-7; Ex. CAL-320 at P 2.1.

FF 131. A document outlining various marketing strategies that could be implemented jointly by Shell and Glendale was drafted by Shell traders as reflected in an e-mail chain dated September 17-18, 2000, and a document virtually identical to it was

produced by Glendale from its business records. Ex. CAL-319 at 22:8-18; Ex. CAL-322; Ex. CAL-323.

FF 132. The Glendale and Shell Marketing Strategies Document describes in detail several Enron-style strategies similar to Ricochet and Fat Boy. Ex. CAL-319 at 22:18-23:2; Ex. CAL-323 at PP 1-3, 7.

FF 133. A strategy similar to Ricochet is described in the Glendale and Shell Marketing Strategies Document as: "Look to utilize park and loans with counterparties such as PNM (PV) and Pueget [sic] (Mid-C) in the DA market, and utilize the energy in the expost and ancillary service markets in the ISO." Ex. CAL-319 at 23:1 & n.34; Ex. CAL-323 at P 7.

FF 134. A strategy similar to Fat Boy is described in the Glendale and Shell Marketing Strategies Document as: "Decremental Price Plays in ISO: When pricing looks favorable, you can obtain power from Glendale via an SC to SC transfer in South Path and park it on a Coral Load ID in either SP, NP or Zone 26. Glendale will earn the difference between the cost of the power and the Decremental Price in the zone in which the power was scheduled." Ex. CAL-319 at 23:1 & n.35; Ex. CAL-323 at P 2.

FF 135. A strategy similar to Load Shift is described in the Glendale and Shell Marketing Strategies Document as: "Inside the ISO, you can take Glendale supplied power via an SC to SC transfer in South Path, move it to North Path (against congestion) and park it on a Coral Load ID. Glendale would earn the congestion payment and any gain (or loss) on the power from being paid the Decremental Price in NP15." Ex. CAL-319 at 23:2 & n.37; Ex. CAL-323 at P 1.

FF 136. Transaction data confirm that Shell and Glendale actually executed the types of strategies outlined in the Glendale and Shell Marketing Strategies Documents. Ex. CAL-319 at 23:2-3; Ex. CAL-324 at 172-181.

FF 137. Shell had an alliance similar to its Glendale alliance with the city of Colton, and similarly used it to pursue Enron-style manipulation schemes in the California markets. Shell also had similar alliances with other generation owners. Ex. CAL-319 at 25:11-26:12; Tr. 1806:25-1807:14,1807:25-1808:9, 1818:1-1819:6.

FF 138. It is evident from both trader communications and transaction data that Shell's Glendale and Colton Agreements were used for Enron-style gaming. Shell implemented manipulative schemes with the knowledge of these alliance partners. Ex.

CAL-319 at 41:13-45:14; Ex. CAL-717 at 66:18-68:13, 135:1-136:6; Ex. CAL-301 at 12; Ex. CAL-336; Ex. CAL-480; Ex. CAL-741 (Attachment K); Ex. CAL-730.

FF 139. The Commission has found that Shell engaged in market manipulation in the ISO and PX Spot Markets during the Summer Period and that Shell's manipulation raised the prices in those markets. The Commission "examined whether there was a consistent pattern of market activities indicating, due to their sheer volume and frequency, and other simultaneously undertaken activities, that a seller engaged in the behavior that rendered the transactions at issue unjustifiable as a legitimate business practice." *San Diego Gas & Elec. Co. v. Sellers of Energy and Ancillary Services Into Markets Operated by the California Independent System Operator Corporation and the California Power Exchange*, Order on Rehearing of Opinion No. 536, 153 FERC ¶ 61,144, at P 3 (2015).

FF 140. The Commission found in Opinion No. 536 that Shell "engaged in Types II and III Anomalous Bidding, as well as False Exports and False Load Scheduling, and these tariff violations impacted the market clearing price." Order on Rehearing of Opinion No. 536, 153 FERC ¶ 61,144 at P 4 (2015).

FF 141. Shell engaged in Type II Anomalous Bids (bids above marginal cost offered in conjunction with some other manipulative scheme such as False Export or False Load) during the Summer Period. As the Commission found, its conclusion was "not solely based on the fact that anti-competitive strategies, such as False Load, False Export, and Economic Withholding" were used, but that "the consistency of Coral's Type II bidding activity demonstrates a pattern of market behavior that cannot be justified as a legitimate business practice" such that "a majority of Coral's bids" tripped the California Parties' conservative screens for detecting anomalous behavior. Order on Rehearing of Opinion No. 536, 153 FERC ¶ 61,144 at P 45 (2015).

FF 142. Shell engaged in Type III Anomalous Bids (bids that were priced far above marginal costs that the seller never expected to be accepted, and thus constituted economic withholding) during the Summer Period. As the Commission found, of Shell's 19,643 MWh of total economic withholding during the Summer Period, approximately 98 percent of its bids remained anomalous even when the marginal cost proxy threshold was increased by a 10% sensitivity factor, and 92% remained anomalous when increased by 25%. Ex. CAL-733 at PP 101 (Opinion No. 536); Order on Rehearing of Opinion No. 536, 153 FERC ¶ 61,144 at P 46 (2015).

FF 143. Shell engaged in False Export during 110 hours of the Summer Period for a total of 1,657 MWh of falsely exported energy. Opinion No. 536 at P 127. On rehearing, the Commission expressly rejected Shell's attacks on Mr. Taylor's False Export screen, finding Mr. Taylor's approach to be "a reasonable method to identify signatures of False Export transactions." Order on Rehearing of Opinion No. 536, 153 FERC ¶ 61,144 at P 60 (2015). The Commission also found that "the pattern of behavior, as measured through the transactions captured by Mr. Taylor's False Export screen, was a key indicator of consistent behavior of tariff violations that permeated through the Summer Period." Order on Rehearing of Opinion No. 536, 153 FERC ¶ 61,144 at P 65 (2015).

FF 144. Shell engaged in 2,598 False Load Scheduling violations that involved 167,545 MWh during the Summer Period. *San Diego Gas & Elec. Co.*, Initial Decision, 142 FERC ¶ 63,011, at P 58 (2013); Ex. CAL-733 at PP 138, 170-185 (Opinion No. 536); Order on Rehearing of Opinion No. 536, 153 FERC ¶ 61,144 at PP 95-111 (2015).

FF 145. The Commission also found in Opinion No. 536 that Shell engaged in other manipulative activity that violated controlling tariffs but as to which the California Parties did not present evidence of impact on the market clearing price, including Type I Anomalous bids, Phantom Ancillary Services, and Circular Scheduling. Ex. CAL-733 at PP 91-93, 189-193 (Opinion No. 536).

FF 146. Shell engaged in Type I Anomalous bidding during the Summer Period. Of the 34,850 total bids Shell submitted, 27,513, or 79%, were Type I Anomalous Bids that violated the ISO MMIP because they "were consistently priced too high and used to exploit shortages in supply in the CAISO real-time market." Opinion No. 536 at PP 58, 91-93. As the Commission found on rehearing, "we do not agree Coral was merely acting in accordance with prevailing market conditions when the record evidence shows other parties did not have to engage in similar bidding patterns to competitively participate in the market." Order on Rehearing of Opinion No. 536, 153 FERC ¶ 61,144 at P 44 (2015).

FF 147. Shell Real Time trader Tobin Dreher was recorded on August 4, 2000 explaining the process of selling Phantom Ancillary Services to the ISO to recently hired Shell trader Shokh Zewar, responding to her question of whether the "ISO know[s] all this" by explaining that its like taking "candy from a baby." Ex. CAL-319 at 27:11-29:8; Ex. CAL-328 A, B at 9:22-25.

FF 148. The Interim Period is the period of the Crisis from October 2, 2000 through January 16, 2001. It followed the Summer Period, which was addressed by the

Commission in Opinion No. 536, where the Commission found that widespread market manipulation by Shell and others raised prices in the ISO and PX markets. It came before the Negotiation Period, which began on January 17, 2001 after the IOUs, the ISO and the PX had become insolvent and the State of California, through CDWR, began purchasing short term and long term power in order to prevent rolling blackouts and stabilize California's electric markets. Ex. CAL-319 at 29:9-30:10, n.55.

FF 149. Following a brief drop in prices in October, 2000, prices ran up unexpectedly again in November of 2000. Squeezed between elevated acquisition costs in the PX and ISO and frozen retail rates, SCE and PG&E's financial positions rapidly deteriorated. Ex. CAL-319 at 31:17-20.

FF 150. On December 8th the Commission granted emergency relief requested by the ISO capping prices in the PX and ISO markets at $250 and in its order on December 15th imposed a soft cap of $150 along with other remedial measures. Ex. CAL-285 at 65:2-6; Ex. CAL-294; Ex. CAL-319 at 32:3-7.

FF 151. The price cap had the effect of allowing marketers to buy energy out of the PX at capped prices. This in combination with the exit of suppliers from the PX and ISO forced the ISO to purchase large volumes of OOM at uncapped prices of $1,000 per MWh or more. Ex. CAL-319 at 32:8-11.

FF 152. On December 9, 2000, Shell traders discussed getting things lined up so that they could "start abusing the ISO" by selling OOM and Ancillary Services. Ex. CAL-319 at 54:10-12; Ex. CAL-339A, B at 14.

FF 153. On December 20, 2000, Carey Morris and Shell Real Time trader Chris Giulini talked about how much money they had made on Phantom Ancillary Services and congestion wheels, and Carey commented on the need to be "creative" in dealing with the ISO. Ex. CAL-319 at 57:5-8; Ex. CAL-334A, B at 4.

FF 154. CDWR began purchasing on behalf of the ISO even before California's Governor formally directed CDWR to take over power purchasing for the Net Short on January 17, 2001, because the ISO was unable to acquire the needed supply on its own. Ex. CAL-319 at 58:6-9.

FF 155. Shell was one of the sellers that began selling to CDWR acting on behalf of the ISO before January 17, 2001. Shell would first arrange a sale with the ISO, and then would call CDWR. CDWR would buy the energy at the price agreed by the ISO and turn it over to the ISO. Ex. CAL-319 at 58:9-12; CAL-348A, B.

FF 156. The State of California through CDWR formally stepped into the role of buyer of the supplies needed to keep the ISO grid operating on January 17, 2001. Ex. CAL-319 at 61:5-8.

FF 157. On January 22, 2001, Shell trader Roy Alvarez defended the high margins Shell was collecting on a Shell/Glendale alliance spot transaction with CDWR to his counterpart at Glendale who questioned the ethics of "gouging" California during a system emergency: "It depends on what side you're on, man. Do you still believe there's a Santa Claus? If, if you think there's a Santa Claus then, then I would say, no, it's not ethical, to be getting the best price you can get." Ex. CAL-319 at 59:13-60:8; Ex. CAL-353A, B at 6:4-9.

FF 158. During the Negotiation Period, Shell made 156 separate contractual Spot Market sales to CDWR in 1,703 individual hours. Ex. CAL-319 at 107:1-7; Ex. CAL-490 (Docket No. EL01-10, Ex. CAT-408).

FF 159. These 156 Spot Market contracts were also the subject of the proceeding in Docket No. EL01-10 that culminated in the issuance of *Puget Sound Energy, Inc.*, 151 FERC 61,173 (2015) (Opinion No. 537), in which the issue is whether Shell's sales to CDWR under these contracts should be subject to refund notwithstanding the *Mobile-Sierra* presumption. Ex. CAL-319 at 107:1-7; Ex. CAL-725 at PP 978, 1022 (EL01-10 Initial Decision); Ex. CAL-724 (Opinion No. 537); *Puget Sound Energy, Inc.*, 153 FERC ¶ 61,386 (2015).

FF 160. In addition to new evidence of Shell's False Exports and bad faith exploitation of CDWR in these 156 Spot Market contracts discovered for the first time and admitted into the record of this proceeding, Mr. Taylor submitted, as part of his testimony in this proceeding, relevant portions of his 2012-2013 testimony and exhibits from Docket No. EL01-10 to show that Shell engaged in False Exports and bad faith in certain of the 156 contracts. Ex. CAL-319 at 85:15-1, 107:1-12; Ex. CAL-330 (Taylor Direct Testimony in Docket No. EL01-10); Ex. CAL-761 (Taylor Rebuttal Testimony in Docket No. EL01-10); Ex. CAL-490 (Docket No. EL01-10, Ex. CAT-408).

FF 161. Shell trader Shokh Zewar arranged the April 24, 2001 multi-hour False Export. She purchased energy from Duke in NP-15 within the ISO for $140/MWh, sold it to Dynegy at COB for $300/MWh and immediately bought it back at COB, still as a south to north transaction, for $325/MWh (thus paying Dynegy $25 to export the energy out of the ISO), set up a buy/resale with PacifiCorp for $20/MWh to falsely sink it in the PNW and sell it back to Shell at COB, and then resold the energy to CDWR as energy

sourced in the PNW from PacifiCorp for $350. The transaction allowed Shell to buy energy in California within the ISO for $140/MWh and, by using Dynegy as an intermediary and PacifiCorp as a false sink, falsely represent to CDWR that the energy was coming from the PNW at a cost of $350. Shell incurred fees of $45 and netted a profit of $165/MWh. Tr. 1486:12-1490:25; Ex. CAL-319 at 86:4-96:2, tbl.2; Ex. CAL-372A, B; Ex. CAL-373A, B; Ex. CAL-374A, B; Ex. CAL-375A, B; Ex. CAL-377A, B; Ex. CAL-511A, B; Ex. CAL-512A, B; Ex. CAL-717 at 47:29-54:5, 58:3-59:9.

FF 162. PacifiCorp's participation in the April 24, 2001 HE 1 False Export as the false sink is clear from the trader tapes and confirmed by Ex. CAL-816, the CDWR Real Time spreadsheet in which the comment filed for the Coral purchase in HE 1 on April 24, 2001 shows that Shell represented the source of the energy as PAC, the trader shorthand for PacifiCorp. Ex. CAL-816 at Cell D 13; Tr. 1486:12-1490:25; Ex. CAL-372A, B. Ex. CAL-373A, B; Ex. CAL-374A, B; Ex. CAL-375A, B.

FF 163. Oral and written email conversations between and among Shell's traders and their managers reveal that Shell consciously exploited CDWR's and the ISO's must buy circumstances by maximizing profits at CDWR's expense. Ex. CAL-319 at 30:12-31:10, 69:6-81:6; Ex. CAL-340A, B; Ex. CAL-359A, B at 6-8; Ex. CAL-362A, B at 2-4; Ex. CAL-459A, B; Ex. CAL-460A, B; Ex. CAL-363; Ex. CAL-353A, B at 6:4-9; Ex. CAL-452A, B at 9.

FF 164. In an internal conversation on January 18, 2001, as the ISO had just experienced rolling blackouts, Beth Bowman, general manager of Shell's West Region, discussed the millions Shell had made in profits on January 17-18, 2001 by selling to CDWR, and stated that she had no ethical problem with blackouts in California, except to the extent that blackouts could require a cessation of Shell's San Diego trading operations. Ex. CAL-319 at 69:12-71:2; Ex. CAL-359A, B at 6-8.

FF 165. In an internal Shell email on January 26, 2001, Shell trader Chris Giulini kept his boss Carey Morris apprised of hourly laundering transactions Giulini was arranging in order to sell to CDWR at COB at a profit of $225/MWh, noting that the ISO was on the verge of cutting Firm customers, and joking that "I am pretty sure there is a reserved parking space in hell waiting for me." In a response, Mr. Morris commended Giulini for his "craftiness" and "creative thinking." Ex. CAL-319 at 78:18-79:25; Ex. CAL-363.

FF 166. In a February 17, 2001 internal conversation between Hank Harris, head of Shell's Real Time trading and one of his traders, the topic was that a third trader, Travis

Vining, was too timid when the ISO informed him that the trade he planned to do was a ricochet and not permitted, and Hank instructed that Travis should not have "let some chucklehead at the ISO" talk him down. Ex. CAL-319 at 73:18-75:15; Ex. CAL-458A, B; Ex. CAL-459A, B.

FF 167. On March 7, 2001, internal conversations between Carey Morris, Shell's supervisor of Real Time traders who reported to Hank Harris, and Shell trader Travis Vining, and then between Travis Vining and another Shell trader, Vince Velasquez, the topic was how to misrepresent to the ISO in order to make sure that Shell's planned Circular Schedules would not be detected. Ex. CAL-319 at 75:17-77:38; Ex. CAL-460A, B.

FF 168. In an internal conversation late in the Negotiation Period between Hank Harris, head of Shell's Real Time trading and one of his senior traders, Roy Alvarez, the topic was whether an existing Shell employee would be suitable for Shell's trading group. Roy's opinion was that Mike lacked the "killer instinct." Hank disagreed, and observed that Mike was "one of those bright kids that when he figures out how to break the rules he gets a little giggle out of it." Ex. CAL-319 at 72:7-73:17; Ex. CAL-362A, B at 2-4.

FF 169. Manipulation of Spot Market prices inflated forward market prices for electricity. Ex. CAL-604 at 45:13-15.

b. Causal Connection of Unlawful Activities to Contract

FF 170. The State created the California Energy Resources Scheduling (CERS) division of CDWR in January 2001 for the purpose of purchasing power, developing and administering a portfolio of power contracts, and overseeing the reconciliation and recovery of costs associated with both spot market and long-term contract power purchases made on behalf of the IOUs. Ex. CAL-210 at 2:18-3:2.

FF 171. CDWR's goal was to enter into a portfolio of long-term contracts to help reliability in California and to decrease the State's over-reliance on the volatile and high-priced spot market. Ex. CAL-200 at 6:7-14, 8:8-11, 25:8-9; Ex. CAL-210 at 2:18-3:2, 5:13-18; Tr. 202:10-22 (Nichols).

FF 172. To secure contracts with just and reasonable terms, CDWR employed a number of experienced energy and business consultants to assist in its operations, including Deloitte & Touche, McKinsey & Company, Montague DeRose & Associates, Electric Power Group, Blackstone Saber Partners, Navigant, Hardy Energy Consultants,

Natsource, and PriceWaterhouse Coopers. Tr. 211:20-214:22 (Nichols); Tr. at 466:5-468:2 (Hart); Tr. at 551:18-554:2 (Lee); *see also* Ex. SNA-228 at 24:1-14.

FF 173. CDWR spent millions of dollars per month on its expert energy consultants. Tr. 470:16-19 (Hart).

FF 174. CDWR was the largest buyer of electricity in the West in 2001. *See* Tr. 183:16-23 (Nichols); Ex. SNA-228 at 7:7-12; Ex. IB-266.

FF 175. Coral's San Diego regional office opened in 1999 with six employees. Tr. 1500:2-5 (Bowman).

FF 176. By 2000-2001, Coral's San Diego office had approximately 20 to 25 employees. Tr. 1588:13-15 (Brown).

FF 177. Shell Energy witness Mr. Ed Brown was the lead negotiator of the Coral Contract on behalf of Coral. Ex. SNA-219 at 5:16-18.

FF 178. Shell's Beth Bowman supervised the activities of those involved in both short-term trading and negotiation of the CDWR long-term contract, with responsibility for maximizing profitability of the office taken as a whole. Tr. 1501:22–1502:5 (Bowman).

FF 179. Hank Harris, Shell's manager of Spot Market trading, advised on the operational aspects of the Shell Contract. Ex. CAL-880 at 3.

FF 180. Shell participated in a Summer Reliability Agreement (SRA) with CAISO to provide reliability generation during the summer months. In return for CAISO's payment of incentive fixed prices in the form of capacity payments to expedite the construction of new generation resources, Shell agreed to build five 43-MW gas turbine generators through Shell's affiliate, Wildflower Energy, L.L.C. (Wildflower). Shell also built a peaking unit in La Rosita, Mexico, for use in the California market. Under the SRA, CAISO could cause the plants to operate for a limited number of hours, but it was Shell's responsibility to arrange for the sale of the plants' power within the CAISO control area. So Shell was building the Wildflower and La Rosita plants without a third-party power purchase agreement—that is, with no assured buyer for this power. Ex. SNA-219 at 5:20-6:1 (Brown Answering); Ex. S-101 (SRA Agreement); Ex. SNA-219 at 6:3-23 (Brown Answering); Ex. S-100R at 11:11 (Poffenberger Answering); Ex. SNA-

219 at 9:14-19 (Brown Answering); Ex. SNA-219 at 6:8-11 (Brown Answering); Ex. SNA-219 at 6:15-17 (Brown Answering).

FF 181. Each of the five Shell SRAs involved the construction and operation of a simple-cycle combustion turbine peaking facility with generating capacity of 43 MWs (45 MWs for Unit 5), for a total generating capacity of 217 MWs, for the summers of 2001-2003, with a commercial operation date of June 15, 2001. Shell referred to the peaking facilities as the Wildflower peaking units. Ex. CAL-834, Schedule A; Ex. CAL-200 at 14:6-9; Ex. COR-1 at 5-6.

FF 182. Assignment of the SRAs from the ISO to CDWR was a critical part of the State's effort to get committed in advance as much power as it could for delivery in Summer 2001. Ex. CAL-156 at 28:21-29:3; Ex. CAL-200 at 14:16-15:1; Ex. CAL-201 at 63; Ex. COR-45.

FF 183. The contract between Shell and CDWR was negotiated between the parties from February 20, 2001 through the day of its signing. It was signed on May 25, 2001, although the writing bears a date of May 24, 2001. Ex. CAL-200 at 15:4-8 (Nichols Direct); Ex. CAL-200 at 20:17-19 (Nichols Direct); Ex. CAL-31 (CDWR-Shell Contract).

FF 184. The contract term ran from May 25, 2001 through June 30, 2012. The base products consisted of Shell's delivery to CDWR of peak 6x16 energy (i.e., at peak hours, on Mondays-Saturdays between 7:00 a.m. and 10:00 p.m.), ranging from 50-400 MW; and 7x24 energy ranging from 50-100 MW. The contract also included options for Shell to increase the peak hour volumes by 175 MW in July 2003, and by another 175 MW commencing in July 2004 through the remainder of the contract term. Ex. CAL-636; Ex. CAL-200 at 13:15-16 (Nichols Direct); Ex. CAL-200 at 21:2-7 (Nichols Direct).

FF 185. The contract's pricing was tiered as follows: $169/MWh through May 31, 2001; $249/MWh from June 1, 2001 through October 31, 2001; $115/MWh from November 1, 2001 through June 30, 2002; $169/MWh from July 1, 2002 through December 31, 2003; $72.87/MWh from January 1, 2004 through December 31, 2005; and $25.16/MWh plus fuel costs from January 1, 2006 through June 30, 2012. A "tolling" structure was included in this latter price tier, in which CDWR had the right to supply its own natural gas fuel at its own cost. CDWR was also obligated to pay capacity payments from July 1, 2002 through December 31, 2005 for each Shell generating facility (the Wildflower Peaking Units) that was online during that time period. Ex. CAL-200 at 21:7-

12 (Nichols Direct); Ex. CAL-200 at 19:15-16 (Nichols Direct); Ex. CAL-200 at 21:12-15 (Nichols Direct).

FF 186. Navigant took the lead for CDWR on the negotiation of the Shell Contract. Ex. CAL-200 at 13:4.

FF 187. On behalf of CDWR, California Parties witness Mr. Ronald Nichols personally participated in the process that led to the Shell contract. His firm, Navigant Consulting, Inc. (Navigant) developed and ran analytical models to assist CDWR with the long-term contract process and participated in the solicitation and evaluation of supply bids for, and the negotiation of, the CDWR long-term contracts. Ex. CAL-200.

FF 188. On behalf of CDWR, California Parties witness Mr. Hart served as Deputy Director of the California Energy Resources Scheduling division of CDWR (CERS) from January 17, 2001, through August 2001. Ex. CAL-210 at 2:14-16.

FF 189. Mr. Hart reviewed and signed the Shell contract and was familiar with the circumstances surrounding the contract negotiation and was apprised of the various milestones in the negotiation of the Shell contract. Mr. Hart notes that Mr. Nichols was more familiar with the specifics of the day-to-day negotiations of the Shell contract. Ex. CAL-210 at 14:15-15:3.

FF 190. Tara Nolan, a Navigant employee who reported to Mr. Nichols, was involved in the day-to-day Shell Contract negotiations. Tr. 247:11 (Nichols).

FF 191. Mr. Nichols explains that CDWR analyzed the pricing in Shell's proposals with the use of a contract and spot market pricing model. This model was used by CDWR and Navigant from February through early June 2001 and was developed as a tool to evaluate multiple combinations of prospective contracts relatively quickly. Ex. CAL-200 at 17:12-15; Ex. CAL-156 at 13:18-14:11; Ex. CAL-201 at 10 (item 34).

FF 192. A contract and spot market pricing model was used by CDWR and Navigant from February through early June 2001. Ex. S-100R at 38.

FF 193. In lieu of relying on forward market prices, CDWR set an internal target to obtain a weighted average cost of $70/MWh for its entire portfolio of long-term power contracts. Ex. CAL-200 at 6:17-7:2; Tr.195:23-197:12 (Nichols).

FF 194. CDWR's portfolio target of $70/MWh reflected the all-in power generation cost already embedded in the average retail rates of the three California IOUs as of 1998, when the legislature restructured the State's electric power industry. Ex. CAL-200 at 6:17-7:2 (Nichols); Tr. 196:6-20 (Nichols).

FF 195. In evaluating long-term contract proposals, CDWR considered reliability to be an important factor and wanted to bring new generation, such as the Wildflower units of Coral's affiliate (Intergen), online by the summer of 2001. Tr. 206:11-23 (Nichols); *see* Ex. COR-10 (Memorandum regarding Summer Reliability Agreements).

FF 196. CDWR issued two requests for bids (RFBs), one dated January 23, 2001 and one dated February 2, 2001. CDWR sought deals for terms of one to three years, but left open the possibility for longer terms in order to encourage sellers to offer CDWR's average price target of $70/MWh. Shell did not respond to the first RFB, but did respond to the second. Ex. CAL-200 at 8:14-15 (Nichols Direct); Ex. CAL-51 at 31:1-13 (Nichols Direct); Ex. CAL-66; Ex. CAL-67; Ex. CAL-051 at 31:1-13 (Nichols Direct); Ex. SNA-219 at 7:13-8:4 (Brown Answering).

FF 197. CDWR distributed the RFBs to as many potential sellers as possible. CDWR emailed the RFBs to a number of market participants and publicly posted the RFBs on CDWR's website. Tr. 218:19-219:19 (Nichols).

FF 198. In response to CDWR's second RFB, CDWR received approximately 110 separate bids from 44 bidders, including bids from some of the largest energy companies in the country. Ex. DYN-44 at 3; Tr. 242:4-18 (Nichols).

FF 199. The State's interest in having CDWR take assignment of the SRAs launched the negotiations between CDWR and Shell for a long-term contract. Ex. COR-10; Ex. CAL-200 at 15:1-2.

FF 200. In response to CDWR's second RFB, Shell offered to sell CDWR 100 MW of 7x24 power at a fixed price of $71.50/MWh for five years commencing January 1, 2002. Ex. CAL-203; Ex. SNA-219 at 8:5-8 (Brown Answering); Ex. COR-1 at 12:7-14 (Brown Answering).

FF 201. On the date of the second RFB, forward prices at SP-15 stood at approximately $130/MWh for 2002 delivery and $75/MWh for 2003 delivery. Spot

electric prices at SP-15 stood at approximately $200/MWh. Ex. CAL-604 at 25, fig.5 (Goldberg Direct); Ex. CAL-604 at 25, fig.5 (Goldberg Direct).

FF 202. CDWR did not respond back, and when Shell contacted CDWR about it, CDWR informed Shell that it was not interested in the bid. CDWR was more interested at that time in procuring 6x16 energy (that is, delivered at peak hours, on Mondays-Saturdays between 7:00 a.m. and 10:00 p.m.) that began deliveries in 2001, which Shell did not offer in its bid. Ex. SNA-219 at 8:8-9 (Brown Answering); Ex. COR-1 at 12:12-14 (Brown Answering); Ex. CAL-200 at 13:16-17 (Nichols Direct); Tr. 245:7-246:4 (Nichols Cross).

FF 203. Shell was concerned about the impact of CAISO's financial health on its Wildflower and La Rosita construction plans, so its representatives met with CDWR officials on February 23, 2001. Ex. SNA-219 at 9:11-21 (Brown Answering); Ex. CAL-200 at 15:9-14 (Nichols Direct).

FF 204. CDWR informed Shell that the State had a critical need for power deliveries during March and April 2001, before Shell's Wildflower units were scheduled to come online in July 2001. In response, Shell made on February 26, 2001 a 10-year offer to provide capacity and energy, beginning July 1, 2001, of principally 6x16 and 7x24 power for 210 MW for the first two years, with increasing base quantities and additional volumes over time. Ex. CAL-200 at 15:16-16:2 (Nichols Direct); Ex. SNA-219 at 10:5-9 (Brown Answering); Ex. CAL-200 at 16:3-6 (Nichols Direct); Ex. SNA-219 at 10:21-11:3 (Brown Answering); Ex. COR-11.

FF 205. Shell offered CDWR a price for energy of $93.95 per MWh for delivery during the period July 1, 2001 through June 30, 2004, and $58.75/MWh for delivery during the period July 1, 2004 through June 30, 2011. Shell requested capacity payments for four years commencing on July 1, 2002 at a price of $352,000 per month for each of the five Wildflower units, for a total of $1,760,000 per month. Ex. CAL-200 at 16:6-8 (Nichols Direct); Ex. SNA-219 at 11:3 (Brown Answering); Ex. COR-11; Ex. CAL-200 at 16:8-9 (Nichols Direct); Ex. SNA-219 at 11:3 (Brown Answering); Ex. COR-11.

FF 206. CDWR and NCI evaluated Shell's term sheet using its spot market pricing model. On March 12, 2001, Tara Nolan of NCI reported to CDWR the results of the analysis: "Absent another benchmark not sure where to go with the analysis but I think overall the deal looks acceptable." Ex. CAL-200 at 17:13-18:11 (Nichols Direct); Ex.

CAL-51 at 11:10-14:2 (Nichols Direct); Exs. CAL-53, CAL-54, CAL-161, CAL-162; Ex. CAL-205.

FF 207. CDWR and Shell signed a Letter of Intent (LOI) on April 6, 2001 for a power purchase agreement that would span eleven years and three months. The LOI provided for Shell's energy sales to commence in April 2001 for 100 MW at a price of $169/MWh. Shell purchased this power on the market and sold it to CDWR at a loss to Shell, with the understanding that Shell would be made whole in the event that the agreement was not executed. The LOI provided that if the anticipated long-term contract was not signed by April 30, 2001, the $169/MWh price would be retroactively revised upward to $260/MWh. Ex. CAL-200 at 18:12-17 (Nichols Direct); Ex. SNA-219 at 17:8-18:4 (Brown Answering); Ex. COR-16; Ex. SNA-219 at 21:8-11 (Brown Answering); Ex. CAL-200 at 19:1-9 (Nichols Direct); Ex. COR-16.

FF 208. The LOI also provided for Shell's delivery of increasing quantities of power during the summer of 2001, and even greater quantities for 2002 through 2010. Energy pricing was set as $169/MWh through 2003, and $72.87/MWh thereafter through 2005. The capacity payment was set at Shell's requested $1,790,000 per month for the five Wildflower units ($21,480,000 per year). For 2006-2012, the LOI provided for a gas-indexed price structure under which CDWR paid a $25.16/MWh fixed charge plus fuel costs. Alternatively, a tolling structure permitted CDWR to provide the volumes of natural gas needed to serve the contract. Ex. COR-19 at 9; Ex. CAL-200 at 19:10-16 (Nichols Direct); Ex. COR-16.

FF 209. On February 20, 2001, CDWR communicated its interest in taking assignment of Shell's five SRAs, including a bilateral contract for capacity and energy from the Wildflower peaking units. Ex. COR-10.

FF 210. On February 23, 2001, Shell's Arlin Travis and Ed Brown travelled from San Diego to Sacramento to meet with CDWR to discuss CDWR's February 20, 2001 proposal. Pete Garris, who was in charge of CDWR's Spot Market purchasing, Richard Ferreira, a CDWR consultant, and Tara Nolan and Mr. Nichols from Navigant, participated on CDWR's behalf. Ex. COR-1 at 14:7-9; Tr. 1653:13-17 (Brown); Ex. CAL-200 at 15:11-14.

FF 211. As part of the initial February 23, 2001 discussion, CDWR made clear to Shell that the State had a critical need for power deliveries that would begin before the

SRAs were scheduled to come online in July 2001. Ex. CAL-200 at 15:16-16:2; Ex. COR-1 at 15.

FF 212. On February 26, 2001, Shell submitted to CDWR a proposal to sell up to 1060 MWs phased in over three years with prices of $93.95/MWh for July 1, 2001 – June 30, 2004 and $58.75/MWh for July 1, 2004 – June 30, 2011. Ex. COR-11; Ex. CAL-200 at 16:6-8.

FF 213. In addition to the price for the sale of energy, Shell's February 26, 2001 proposal required capacity payments commencing July 1, 2002, for four years at a price of $1,760,000 per month. Ex. COR-11; Ex. CAL-200 at 16:8-9.

FF 214. On February 28, 2001, Shell negotiator Arlin Travis advised Mr. Brown, Shell traders Mr. Turrent and Mr. Harris, and their supervisor, Ms. Bowman, of CDWR's request for short-term power in April, May, and June 2001. Mr. Harris, who was responsible for the day-to-day management of all of Shell's short-term power trading in the West replied: "We'll look to throw them April–June power, if we find it." Ex. CAL-204; Ex. CAL-670 at 19:11-16.

FF 215. Shell revised its February 26, 2001 proposal memorialized in a term sheet dated March 16, 2001 under which the contract term started on April 1, 2001 with 100 MWs of power for April-June 2001 in exchange for higher prices and other modifications benefitting Shell and CDWR. Ex. COR-14; Ex. CAL-200 at 16:18-17:1.

FF 216. The March 16, 2001 term sheet significantly increased the price from the February 26, 2001 proposal – from $93.95/MWh to $169/MWh in the early years (2001-2003) – increased Shell's optionality in delivery points, and extended the contract an additional year. Ex. COR-14; Ex. COR-11; Ex. CAL-200 at 17:5-8.

FF 217. The longer-term prices in Shell's March 16, 2001 term sheet changed from $58.75/MWh to $72.87/MWh for January 1, 2004 – December 31, 2005, and to fixed charges of $25.16/MWh plus fuel costs for January 1, 2006 – June 30, 2012. Ex. CAL-200 at 17:8-11; Ex. COR-14.

FF 218. Shell and CDWR negotiated an LOI, which they executed on April 6, 2001, setting forth a non-binding summary of various terms and conditions for a power purchase agreement that would span eleven years and three months. Ex. COR-16; Ex. CAL-200 at 18:14-17.

FF 219. The LOI provided for Shell's energy sales to commence right away under the Western Systems Power Pool (WSPP) Agreement for 100 MW at a price of $169/MWh for April 2001 sales. Ex. CAL-200 at 19:4-7; Ex. COR-16.

FF 220. The LOI provided, however, that if the anticipated long-term contract was not signed by April 30, 2001, the $169/MWh price for April deliveries would be retroactively revised upward to $260/MWh. Ex. CAL-200 at 19:7-9; Ex. COR-16; Tr. 423:1-22 (Hart).

FF 221. In the LOI, energy pricing for all products was set as $169/MWh through 2003 and $72.87/MWh through 2005. Ex. COR-16; Ex. CAL-200 at 19:11-12.

FF 222. For 2006-2012, the LOI provided for a gas-indexed price structure under which CDWR paid a $25.16/MWh fixed charge plus fuel costs, or alternatively, CDWR could provide the equivalent volumes of natural gas needed to serve the contract. Ex. CAL-200 at 19:12-16; Ex. COR-16.

FF 223. The final long term agreement was not completed by the April 30, 2001 LOI expiration date, so the parties agreed to extend the LOI to May 31, 2001, with May deliveries handled the same as April's at the same price of $169/MWh, and a fallback price of $315/MWh if a final deal was not signed in May. Ex. CAL-200 at 20:3-9 (Nichols Direct); Ex. SNA-219 at 20:17-20 (Brown Answering).

FF 224. The price for Shell to deliver power in May 2001 remained at $169/MWh, but it would be retroactively adjusted to $315/MWh for May deliveries if the contract was not executed by May 31, 2001. Ex. CAL-200 at 20:7-9; Ex. COR-18.

FF 225. On May 7, 2001, Beth Bowman informed her supervisor, Debbie Wernet, that Ed Brown, Sarah Wolfe and James Davitt were on their way to Sacramento for two days of "tough negotiations with CDWR." Ex. CAL 496; Tr. 1579:20-1580:13 (Bowman).

FF 226. After CDWR had repeatedly rejected Shell's demands for termination payments if the revenue bonds designed to secure CDWR's creditworthiness were not timely issued, on May 8, 2001, Shell asked CDWR to change the contract pricing such that Shell would sell at market prices, rather than at $169/MWh, and then Shell would refund the difference between market and $169, or hold the difference in an escrow

account to be refunded, when the bonds were issued at investment grade. Ex. CAL-855 at 20, Ex. CAL-857 at 22; Ex. COR-1 at 36:14-17.

FF 227. On May 8, 2001, CDWR responded that it had not agreed to Shell's termination payment proposal with any other party, that the Shell demand would trigger the most favored nations status in other contracts, and in the alternative, CDWR proposed a mechanism to take the contract price back to market prices determined after the fact if Shell elected to terminate due to failure to issue revenue bonds. Ex. COR-1 at 36:17-37:5-7; Tr. 1707:1-1708:22 (Brown).

FF 228. On May 9, 2001, Shell declined CDWR's May 8, 2001 proposal concerning termination payment. Ex. COR-1 at 37:3-38:12.

FF 229. On May 24, 2001, the Governor's office requested the removal of the termination payment provision from the Shell Contract. Tr. 520:11-521:3, 524:14-16 (Hart).

FF 230. Near the end of May, CDWR agreed to reimburse Shell for its power purchases on CDWR's behalf by paying for April through September 2001 purchases at monthly forward rates ranging from $245 to $350 per MWh. CDWR estimated that if it did not complete the deal with Shell by May 31, 2001, it would owe Shell about $9.4 million in retroactive payments for the power that Shell had sold to CDWR in April and May 2001. Ex. SNA-219 at 23:4-9 (Brown Answering); Ex. COR-20; Ex. CAL-200 at 20:13-17 (Nichols Direct); Ex. CAL-207.

FF 231. This deal fell apart at the last minute in the office of the Governor of California. According to Hart, "CDWR was told by the administration that the Shell deal as structured on May 24, 2001 would have been a political nightmare because under it CDWR was agreeing as a contingency to retroactively pay Shell astronomical Spot Market prices – the very prices that were the driving force for CDWR getting into long-term contracts." Ex. CAL-673 at 8:8-12 (Hart Rebuttal).

FF 232. Even after the Governor's office refused to allow CDWR to execute the Shell Contract with the termination payment in place, CDWR executed the Shell Contract the next day replacing the termination payment with increased upfront energy pricing. Ex. CAL-673 at 8:1-17; Tr. 444:14-18, 524:2-19 (Hart); Ex. CAL-670 at 12:1-4; Ex. CAL-671; Ex. CAL-674 at 3-4.

FF 233. In place of the original deal, CDWR proposed to Shell a price change for the initial period of the agreement. Instead of $169/MWh through 2003 with retroactive protection as agreed upon, CDWR proposed: (i) $169/MWh for April and May 2001 purchases through May 31, 2001; (ii) $249/MWh for purchases from June 1, 2001 through October 31, 2001; (iii) $115/MWh for purchases from November 1, 2001 through June 30, 2002; and then (iv) $169/MWh for purchases from July 1, 2002 through December 31, 2003. Ex. SNA-219 at 23:14-25:4 (Brown Answering).

FF 234. In the last minute change to the Shell Contract, Shell went from having a provision similar to an insurance policy where Shell could receive additional funds if CDWR could not secure bonds to a provision in which Shell absolutely received these additional funds as part of the price of energy. Ex. CAL-673 at 9:1-5.

FF 235. Shell agreed that the last minute changes to the contract were revenue neutral. Ex. SNA-219 at 35:12-17.

FF 236. Shell did not walk away from the deal on May 24, 2001; it came back and signed the contract on May 25, 2001. Ex. CAL-673 at 9:9-11.

FF 237. The deal was signed; although the contract bears the date May 24, 2001, the parties actually executed it on May 25, 2001. Ex. CAL-200 at 20:17-18 (Nichols Direct); Ex. CAL-31 (executed agreement).

FF 238. By this time, both spot and forward prices had fallen well below the rates set forth in the agreement. As of May 25, 2001, forward market electricity prices at SP-15 stood at approximately $75/MWh for 2002 delivery and $50/MWh for 2003 delivery. Spot electric prices at SP-15 stood at approximately $110/MWh. Ex. CAL-604 at 25, fig.5 (Goldberg Direct).

FF 239. Navigant performed modeling that included the Shell contract and modeling that did not include the Shell Contract so that CDWR could evaluate the impact on the overall portfolio, which included the change in Spot Market purchases. Tr. 290:6-11 (Nichols).

FF 240. CDWR's model included "a 'market adder,' measured as a percent of the assumed base price," to account for the difference between the model's prices and conditions CDWR was seeing in the spot market. Ex. CAL-156 at 17:19-20:17.

FF 241. Beth Bowman admitted that Shell relied on forward prices to evaluate the Shell Contract throughout the negotiations. Tr. 1558:25-1559:2 (Bowman).

FF 242. CDWR and ISO management gave priority to maintaining the electric grid to preserve the safety and well-being of electric consumers. Ex. CAL-680 at 7:19-21.

FF 243. During the period from January through June 2001 the ISO, and CDWR employees acting at its direction, waged an hourly battle to procure enough power to balance the grid and avoid rolling blackouts. Ex. CAL-680 at 8:6-9.

FF 244. Continued reliance on the Spot Market jeopardized the reliability of the system going into the summer of 2001. Ex. CAL-680 at 9:4-6, 10:18-20, 12:4-8.

FF 245. During numerous "peak day" calls when Stage 2 or Stage 3 emergencies were declared, FERC personnel who participated in the calls told Mr. McIntosh that the ISO should not consider cost as a factor in procuring power, even though FERC knew that the ISO often had to pay 5 to 10 times the usual price for energy. Ex. CAL-680 at 9:6-8; Tr. 605:14-607:10 (McIntosh).

FF 246. From the ISO's perspective, long-term contracts were absolutely necessary for CDWR to assure reliability given the continuingly chaotic and dysfunctional Spot Market. Ex. CAL-680 at 12:4-8.

FF 247. A complete copy of the executed Shell Contract is contained in the record of this proceeding as Ex. CAL-31.

FF 248. The Shell Contract was executed on May 25, 2001 and ran for a term of eleven years, ending June 30, 2012. Ex. CAL-634R at 6:15-16; Ex. CAL-31.

FF 249. CDWR paid Shell approximately $2.85 billion for 34.5 million MWh of energy deliveries under the Shell Contract, at an average "all-in" cost of $82.51/MWh. Ex. CAL-634R at 10:3-4, 11, fig.1; Ex. CAL-216.

FF 250. The Shell Contract rates were fixed through 2005, but varied over time as follows. Ex. CAL-634R at 7:2-8; Ex. CAL-636; Ex. CAL-31.

FF 251. Starting January 1, 2006, the Shell Contract converted to an indexed pricing arrangement with a $25.16/MWh fixed charge (applied to fixed energy deliveries) plus fuel costs. Ex. CAL-634R at 7:9-12; Ex. CAL-636; Ex. CAL-31.

FF 252. Starting in 2002, CDWR had the option to schedule dispatch of each of the five Wildflower Peaking Units up to 500 hours each calendar year through 2005. CDWR paid Shell capacity payments of $358,000 per month (or approximately $100/kW-yr) from July 2002 – December 2005 for each Wildflower unit that was online during that period. Ex. CAL-634R at 9:3-18; Ex. CAL-636; Ex. CAL-31.

FF 253. The Shell Contract was not tied to any specific generation source, meaning that Shell could fulfill its delivery obligations solely from the market. Ex. CAL-634R at 9:3-4; Ex. CAL-636; Ex. CAL-31; Ex. CAL-804 at 6:9-12; Tr. 905:25-906:3, 931:22-932:2 (Kito).

FF 254. The Shell Contract included non-price terms related to volume and delivery location flexibility. Ex. CAL-634R at 8:2-14, 27:9-14, 41:14-42:8; Ex. CAL-636.

FF 255. After 2006, CDWR had the option to reduce volumes by 25 MW per quarter for the 7x24 product delivered under the contract. However, CDWR would still have to pay the fixed charge of $25.16/MWh for the reduced quantities "notwithstanding the fact that such [r]educed [quantities] are not to be delivered." Ex. CAL-634R at 41:16-17; Ex. CAL-636; Ex. CAL-31, § 3.6(f).

FF 256. Shell had the option to increase peak hour volumes by 175 MW from July 2003 onward, and another 175 MW from July 2004 onward. Ex. CAL-634R at 8:2-5, 42:1-4; Ex. CAL-636; Ex. CAL-31.

FF 257. Shell had the option to reduce peak-hour (6x16) and clock-hour (7x24) volumes and increase peak-hour volumes by 10% annually. Ex. CAL-634R at 41:21-42:1; Ex. CAL-636; Ex. CAL-31; Ex. CAL-665 at 14:19-15:11.

FF 258. Shell's costs did not drive Shell pricing to CDWR. Shell's price was driven by Shell's quest for the highest margin it could get. Ex. CAL-319 at 103:2-5; Ex. CAL-717 at 62:1-65:25 (Taylor); Ex. CAL-332A, B; Ex. CAL-381A, B; Ex. CAL-384; Ex. CAL-751A, B; Ex. CAL-752A, B.

FF 259. Shell recognized by February of 2001 that the generation it had coming online, La Rosita and the Wildflower Units, gave Shell a long position in the market. Shell expected market prices would decrease or "tank." Ex. CAL-319 at 183:12-15; Ex. CAL-358.

FF 260. Shell recognized that its long position in the market coupled with its expectations that the market would tank created an incentive for Shell to enter into a long-term agreement to lock in high market prices for its excess generation and hedge against its long position. Ex. CAL-319 at 183:12-17; Ex. CAL-358.

FF 261. One of Shell's goals throughout the negotiation was to lock in Crisis Period prices. Ex. CAL-319 at 183:12-17; Ex. CAL-358.

FF 262. Ms. Bowman's contemporaneous evaluation of the Shell Contract estimated Shell's losses in the initial seven months of the Shell Contract at only $5 million, and she observed that because the Shell Contract was frontloaded, Shell would recover 70% of the total value of the Contract, roughly $336 million, in the first three years of the Shell Contract. Ex. CAL-319 at 175:10-17; Ex. CAL-717 at 132:5-10; Ex. CAL-451 at 3, 8-9.

FF 263. Long term contracts were viewed by CDWR as a way to pay off immediate power needs over time, not as a hedge to lock in the cost of future power purchases. Ex. CAL-200 at 5:11-6:17 (Nichols Direct); Ex. CAL-670 at 10:9-14 (Nichols Rebuttal); Tr. 642:20-25 (Pacheco Cross); Tr. 2688:13-20 (Ritchie Closing Arg.) ("PRESIDING JUDGE: … [CDWR] wanted to have those long-term contracts because then they could delay out the payments for the high spot prices they had to pay in the beginning; right? MR. RITCHIE: That was the exchange. That was the cost to keep the lights on … in California. They were forced to take these longer term deals, yes.").

FF 264. There is little evidence that CDWR compared the costs of its long term contract offers (including Shell's offers) to then-prevailing forward prices, which by April 2001 were declining for deliveries in future years. The evidence shows only that CDWR focused on reliability and reducing the size of the Net Short in early 2001. Tr. 2645:2-2647:1 (McKeon Closing Arg.); Tr. 2679:7-21 (Berman Closing Arg.).

FF 265. There is no evidence that CDWR's modeling technology was capable of alerting CDWR about declining spot and forward prices. Its sole purpose was to estimate the cost of the Net Short through 2003 based upon a projection of production costs, after taking into account whatever executed and proposed long term contracts were executed or under consideration when the model was run. Ex. CAL-156 at 14:12-19:16 (Nichols Rebuttal); Ex. CAL-161; Ex. CAL-162; Ex. COR-67 at 181:17-24, 191:8-20, 136:24-137:12 (Nolan Dep).

FF 266. Shell's manipulative actions in the Summer and Interim Periods contributed to the collapse of the California power markets, pushed the IOUs into bankruptcy and drove the State, in the form of CDWR, into the difficult position of purchasing enough power each day in the Spot Markets to keep California's lights on while at the same time negotiating long-term contracts to reduce its exposure to excessive Spot Market prices and to secure enough power to guard against predicted blackouts in the summer of 2001 and beyond. Ex. CAL-319 at 115:9-116:1.

FF 267. At the same time Shell was pursuing a long-term energy deal with CDWR, Shell continued to engage in manipulative trading strategies that contributed both to the stratospheric power acquisition costs CDWR was incurring through Spot Market purchases and to the reliability concerns that forced CDWR to seek relief through long-term contracts in the first place. Ex. CAL-319 at 116:10-15.

FF 268. Shell personnel who were negotiating the long term contract with CDWR enlisted the help of Shell's spot market traders who were engaged in unlawful, manipulative activities to find power for CDWR's summer needs. Tr. 1663:25-1667:2 (Brown); Ex. CAL-204.

FF 269. Shell's spot market traders and long term contract negotiators were well aware of the profitable outcomes of their spot market sales from employing these strategies. The audio tape recordings and e-mails of Shell trader conversations that have been admitted in evidence are replete with references to the traders' knowledge of unlawful activities and how profitable they were. Beth Bowman, the head of Shell's trading office that negotiated the CDWR-Shell contract and conducted Shell's spot market trades, was aware of these activities. Ex. CAL-717 at 57:23-28 (Taylor Rebuttal) (December 7, 2000 e-mails and telephone conversations show "that Ms. Bowman and Mr. Turrent, who were later involved with the long-term-contract negotiations, were fully apprised of the manipulative schemes of Shell's Real Time traders and the profits that Shell was reaping from those activities."); Exs. CAL-727, CAL-543A, B; Ex. CAL-423B at 2:21-5:4 ("Well. Yeah, that… (laughs) It wouldn't be done if there wasn't money involved"); Ex. CAL-328 at 9:12-11:4 ("It's candy from a baby"); Ex. CAL-363 ("I am pretty sure there is a reserved parking space in Hell waiting for me"); Ex. CAL-340-B at 9:2-7 ("TRAVIS: I don't know how honest that is, but, we're not in the honesty game are we? ROY: We're in optimizing. It's not a question of honesty. TRAVIS: Yeah. ROY: It's a question of optimization"); Tr. 1517:18-24, 1523:22-1524:5 (Bowman Cross); Ex. CAL-322 at 2.

FF 270. Internal Shell emails show that it understood that a contract with CDWR committing Shell's new generation resources, La Rosita and the Wildflower Units, to a long-term deal, was a "big bet" that historically high 2001 energy market prices would tank. Shell knew in early 2001 that the California Spot Markets were dysfunctional. Shell knew that regulators could stop the chaos and shut down the extreme profits through market mitigation at any time. Ex. CAL-319 at 117:3-118:14; Ex. CAL-358; Ex. CAL-476; Ex. CAL-378; Ex. CAL-387A, B at 5-6.

FF 271. Shell traders discussed the possibility that regulators might catch on to their manipulating ways, corroborating that Shell and its San Diego trading operation understood that regulatory action could be taken to lower the excessive Spot Market prices. Ex. CAL-319 at 118:14-119:15; Ex. CAL-463; Ex. CAL-361A, B; Ex. CAL-469.

FF 272. Shell personnel working on the long-term deal with CDWR knew about Shell's manipulative trading strategies in the Spot Market. Ms. Bowman oversaw all of Shell's western operations, including the spot traders, resided in the same office as the traders, and was kept abreast of both their manipulative trading strategies and excessive profits. At the same time, she was providing strategic direction regarding the CDWR deal, initiated the long-term contract approval process at Shell, and was heavily involved in all internal decisions concerning the agreement through its execution. Ex. CAL-319 at 120:1-5, 120:18-121:12; Ex. CAL-717 at 55:12-57:25; Ex. CAL-396; Ex. CAL-407; Ex. CAL-410; Ex. CAL-428; Ex. CAL-435; Ex. CAL-481; Ex. CAL-543A, B; Ex. CAL-727.

FF 273. Mr. Brown, who initiated Shell's lucrative arrangements with Glendale and Colton that Shell traders exploited throughout the Negotiation Period, was Shell's lead negotiator on the long term contract with CDWR. Mr. Brown maintained oversight of the Glendale and Colton relationships and was regularly copied on correspondence regarding the manipulative activities in the Spot Market undertaken with these municipalities and the profitability of manipulative schemes implemented through Shell's alliances. Ex. CAL-319 at 120:6-8, 121:12-122:1; Ex. CAL-414; Ex. CAL-426.

FF 274. Mr. Brown was kept informed of issues regarding the alliance agreements. Mr. Brown was copied on discussion of Shorting Generation and similar schemes with Glendale to bid Ancillary Services that they did not have and cover them by drawing on the inadvertent deviation leeway with LADWP. Ex. CAL-319 at 121:14-122:1; Ex. CAL-717 at 137:5-12; Ex. CAL-426; Ex. CAL-443i at 1; Ex. CAL-742.

FF 275. Mr. Harris, Shell's Real Time Manager, provided operational support and guidance regarding the Shell Contract. Shell Spot traders knew about the potential long-term deal with CDWR. Shell's term traders implemented the purchases of third quarter 2001 positions needed to hedge the early months of the contract because the generation to back the sale would not yet be on line. Ex. CAL-319 at 120:6-8, 122:6-123:16; Ex. CAL-618A, B; Ex. CAL-432; Ex. CAL-494; Ex. CAL-356; Ex. CAL-204.

FF 276. Mr. Morris, Shell's Real Time Supervisor, emphasized to his traders the need to keep one another, and especially the San Diego trading operation personnel outside the Real Time group, informed of all relevant market information acquired by the Real Time desk traders. The Real Time traders were a very close-knit group. Ex. CAL-319 at 122:13-123:2; Ex. CAL-618A, B; Ex. CAL-432; Ex. CAL-494; Ex. CAL-356.

FF 277. Shell Spot traders likewise knew about the potential long-term deal with CDWR. Mr. Harris, the Real Time Manager, was consulted in the contract negotiations. Shell's term traders implemented the purchases of third quarter 2001 positions needed to hedge the early months of the contract because the generation to back the sale would not yet be on line. Ex. CAL-319 at 122:6-123:16; Ex. CAL-618A, B; Ex. CAL-432; Ex. CAL-494; Ex. CAL-356.

FF 278. Mr. Harris supported the long-term contract negotiations. Following Shell's first meeting with CDWR regarding the long-term contract, Arlin Travis reached out to Mr. Harris and Ms. Bowman among others to inform them that as part of any long-term deal, CDWR wanted deliveries prior to July 2001 when Shell's new generation units were expected to come online. Mr. Travis stated that Pete Garris, who attended the meeting and was in charge of CDWR's Spot Market purchasing, was looking for power in April, May and June. Mr. Travis requested of Mr. Harris and Ms. Bowman: "Anything you can do, even if we only make a buck or two would be good for getting the larger deal done." Mr. Harris responded "We've done about $55 million in RT [Real Time sales] since January. We'll look to throw them April – June power, if we find it." Ex. CAL-319 at 123:3-16; Ex. CAL-204.

FF 279. Shell's manipulative trading strategies spanned the entire period of key negotiation dates, including: Shell's written proposal to CDWR on February 26, 2001, the parties' verbal agreement to a term sheet on March 16, 2001; execution of the previously discussed LOI on April 6, 2001, and execution of the Shell Contract on May 25, 2001. Figure 2 in Mr. Taylor's Direct Testimony Part 2 displays in graphic form the False Export and bad faith manipulation Mr. Taylor found in the 156 Spot Market

contracts between Shell and CDWR against key long term contract milestones. The red diamonds identify the spot transactions affected by manipulation or bad faith, and the prices associated with those transactions. The blue and green lines plot Day-Ahead spot prices at COB and in the ISO. The black line tracks forward prices for the third quarter of 2001, the coming June, July and August period. Along the top of the picture, colored triangles indicate any emergency condition declared by the ISO. The key dates in the negotiation of the Shell Contract referenced above are shown with vertical dotted lines. Ex. CAL-319 at 125:11-126:6, fig.2.

FF 280. Shell's missing audio has created an evidentiary gap at the critical time when the Shell Contract was being finalized. Audio recordings provide contemporaneous evidence of the unguarded views regarding the motives behind the actions of traders and their supervisors. This information often provides the insights necessary to interpret the complicated mosaic of data on supplier transactions. Shell did not provide audio recording for 30 days during the Crisis period. By far, the largest single group of missing recordings is from May 13-27, 2001, or roughly the two weeks immediately before the Shell Contract was executed. Conversations that occurred during the final days leading to and immediately after execution of the Shell Contract would have been highly relevant to Mr. Taylor's review and the issues set for hearing in this case; the loss of this audio unquestionably impaired evaluation Shell's actions during this critical period. Ex. CAL-319 at 113:6-114:4; Ex. CAL-453.

FF 281. Forward contracts are agreements to buy or sell a specified amount of a commodity over a future period at a certain price generally at a particular location. For electricity there are well established bilateral markets at various trading hubs for forward contracts for future months, calendar quarters or years. Ex. CAL-319 at 132:18-133:3.

FF 282. Traded forward contracts have standardized terms, generally offered in increments of 25 MW for peak, off-peak or all hours for delivery at recognized locations such as COB/Malin and Mid-C in the PNW or Palo Verde near the California/Arizona border. Brokers continually quote and publish bid and ask prices for such contracts. Ex. CAL-319 at 133:5-9.

FF 283. Shell's behavior in short-term trading with CDWR affected forward prices. Forward prices reflect expectations about future spot prices. Shell's manipulative activity and that of other suppliers in Spot Markets elevated Spot Market prices and made them much more volatile. High and volatile spot prices over the winter of 2000-2001 raised

concerns about future market dysfunction and thus expectations about future spot prices that elevated forward contract prices. Ex. CAL-319 at 135:7-137:1, fig.5.

FF 284. Dr. Goldberg contended that "during the crisis the spot prices were elevated far beyond historical experience. That changed what people thought might happen in the future, and we see the forward prices reacting to that, and all the parties were evaluating the overall value of the contract relative to those forward prices. So therefore, that rolled into contract prices." Tr. 1182:1-7; Ex. CAL-604 at 2:13-3:12.

FF 285. Manipulation by Shell and other suppliers impacted Spot Market prices. If energy can be transferred from one market to another, prices across the markets will tend to equilibrate. A buyer paying high prices draws supply away from other purchasers and tends to elevate the prices paid by all buyers. This is true in bilateral markets as well as auction markets particularly if the buyer's behavior persists over time as was the case with CDWR. Ex. CAL-319 at 137: 4-11, n.204.

FF 286. Expectations of the level of Spot Market prices that will exist at a future time of delivery are the primary factor that determines forward prices for that delivery date. Changes in expected Spot Market prices result in changes in corresponding forward prices. Ex. CAL-604, at 11:12-13:2; Ex. CAL-784, at 8:1-6, 46:11-13; *see* Ex. SNA-230, at 71; Ex. IB-242, at 10; Tr. 1220:4-1222:1 (Goldberg); Tr. 1989:7-12 (Pirrong); Tr. 2011:21-2012:2 (Pirrong).

FF 287. Spot Market prices for electricity in California affect forward prices for electricity in California. Ex. CAL-604, at 34:5-42:16; Ex. CAL-784 at 33:6-17; Ex. CAL-291 at 189-207 (V-1 – V-19); Tr. 1211:23-1212:1 (Goldberg); Tr. 1214:1-5 (Goldberg); Tr. 1988:12-14 (Pirrong); Tr. 2471:20-2472:4 (Cavanagh).

FF 288. Persistent increases in California Spot Market prices for electricity during the Crisis led to significant increases in forward prices for electricity. Ex. CAL-604 at 26:1-4, 42:10-16; Ex. CAL-784 at 9:5-7; Tr. 1211:23-1212:1, 1214:1-5 (Goldberg).

FF 289. Complainants' witness Dr. Goldberg offers a regression analysis based on forward contracts for delivery at SP-15 for 6x16 electricity for one-year calendar blocks. Ex. CAL-604 at 19:17-20:3, 37:1-3; Ex. CAL-607.

FF 290. The regression of Spot Market prices (adjusted for natural gas prices) against forward prices demonstrates that spot prices in California electricity markets

affected forward prices in California electricity markets during the Crisis in a statistically significant manner. Ex. CAL-604 at 34:5-42:16; Ex. CAL-784 at 33:6-17; Ex. CAL-291 at 189-207 (V-1 – V-19); Tr. 2471:20-2473:4 (Cavanagh).

FF 291. Market participants derive expectations of future Spot Market prices from current and past market prices. Current Spot Market prices influence expectations of future Spot Market prices. Ex. CAL-604 at 13:1-15:4.

FF 292. West-wide price caps that FERC imposed in June 19, 2001 were the first effective measure to mitigate spot price increases. After FERC imposed west-wide price caps, spot electricity prices returned to levels seen prior to the Crisis Period. Ex. CAL-604 at 28:16-29:4, 17 fig.1, 18 fig.2.

FF 293. All four analyses completed by the proceeding participants support the fact that that spot electric prices correlated closely with forward electric prices within a period of two to three years following the end of the Crisis. Ex. CAL-291 at 391 (FERC Staff, Final Report on Price Manipulation in Western Markets, Docket No. PA02-2-000 (March 2003)) (tbl.V-C1); Ex. CAL-604 at 48 (Goldberg Direct); Ex. SNA-230 at 84:11 (tbl.8); Ex. SNA-237 at 2; Ex. IB-242 at 18 (tbl.3) (Cavanagh Answering); Ex. IB-244 (Column 5).

FF 294. Forward market participants during 2000-2001 expected the dysfunctions present in the spot electric market of that time to have an impact on future spot prices, as reflected in 2000-2001 forward prices, for at least two years into the future; that is, on deliveries during 2002 and 2003. Ex. CAL-90 at 24:18-30:11 (Stoft Direct); Ex. CAL-604 at 26:1-8 (Goldberg Direct).

FF 295. Shell's own witness, Dr. Pirrong, has studied the relation between spot prices and forward prices in California. While he predicted from theory that spot prices should have little influence on forward prices, he found that electric markets did not behave consistently with that theory in that spikes caused by short term increases in electric load tended to raise forward electric prices. He also found that generally volatile conditions in the Spot Markets tend to inflate forward prices, and he found that when sellers had market power and thus were able to cause price spikes in the Spot Markets, that they increased forward prices because they knew that a forward sale would mean forgoing the opportunity to benefit from such spikes. These results are consistent with Prof. Pindyck's conclusions and those of the California Parties' experts. Ex. CAL-910 at 11-21; Ex. CAL-911 at 117-118; Ex. CAL- 912 at 2, 24-34.

FF 296. Both Shell and Iberdrola evaluated their CDWR contracts with reference to the forward price curves, and used forward prices as a justification for their pricing levels. Ex. CAL-604 at 43:5-44:11.

FF 297. Current electricity spot prices affect forward contract prices through their impact upon expectations. Changes in spot prices may provide information that causes market participants to revise what they expect in terms of future spot prices. Forward contract prices reflect risk-adjusted expectations of future spot prices. Ex. CAL-319 at 140:11-14.

FF 298. Traders' expectations of forward prices were influenced by what was going on in the Spot Markets. Ex. CAL-319 at 143:1-144:11; Ex. CAL-717 at 118:14-119:4; Ex. CAL-401; Ex. CAL-402; Ex. CAL-762.

FF 299. Shell evaluated proposed long-term contract prices against forward prices. Ex. CAL-319 at 144:19; Ex. CAL-403; Ex. CAL-404.

FF 300. Electricity that uses natural gas is typically "on the margin," meaning it is the most expensive unit setting the market price for electricity in Western North America. Ex. CAL-268 at 5:18-21, 13:12-14; Tr. 1054:25-1055:21 (Berry); Tr. 1772:16-1773:1 (Pirrong).

FF 301. Forward market price curves dropped precipitously from March to May 2001. Ex. CAL-604 at 23:9-11.

FF 302. The record shows that CDWR did not rely upon forward price curves in its negotiation of long-term forward contracts. Ex. S-7.

FF 303. It is undisputed that both Coral and later Shell Energy fully performed all of their obligations to CDWR under the Coral Contract, delivering 34,507,002 MWh to CDWR over the 11-year term of the Contract. *See* Ex. CAL-216.

FF 304. The Coral Contract provided grid reliability. Tr. 602:12-18 (McIntosh).

FF 305. In 2001 there was a significant transmission constraint between SP-15 in southern California and NP-15 in northern California. Tr. at 281:20-23 (Nichols).

FF 306. California Governor Gray Davis made contemporaneous statements praising the Coral Contract, saying it would "keep supplying California with power . . . at reasonable rates." Ex. COR-4; *see* Ex. COR-5; Ex. SNA-219 at 47:1-15.

FF 307. On May 24, 2001, the day before the Coral Contract was executed, Complainants' witness Mr. Hart said that the Coral Contract was "a good deal." Ex. CAL-809 at 5.

FF 308. From shortly after execution of the CDWR long term contract through year-end bonus time in 2001, Bowman was reporting to her superiors at Shell that the value of the long term contract with CDWR had reached nearly $500 million, "reflect[ing] the outcome in today's lower power and gas market." Tr. 1573:5-16 (Bowman); Ex. CAL-888 at 2; Ex. CAL-319 at 185:4-6 (Taylor Direct); Ex. CAL-451 at 3; Complainants Post-hearing Initial. Br. at 70.

FF 309. The evidence of record, however, does not support the notion advanced by Complainants that Shell was in a more advantageous bargaining position than CDWR. Tr. 209:4-214:22 (Nichols Cross); Tr. 182:2-7 (Nichols Cross); Ex. MSC-17 at 3 ("As more and more of the energy supply to meet the net short obligation is placed under contract by CDWR, the more the CDWR purchases set the market."); Ex. S-100R at 42:17-43:17 (Poffenberger Answering); Ex. S-105 at 3 (originally AYE-51; CDWR memo reviewing progress of negotiations and noting that "sellers had to concede numerous points to obtain the terms and provisions they ultimately ended up with in the agreements").

FF 310. Both Shell and CDWR exhibited relatively equal bargaining power during negotiations for the long-term contract. Tr. 182:2-7, 209:4-214:22 (Nichols Cross); Ex. MSC-17 at 3; Ex. S-100R at 42:17-43:17 (Poffenberger Answering); Ex. S-105 at 3.

FF 311. Unlike the southern end of California, the northern end was a constrained market during the Crisis Period that relied heavily on imports of electricity from a small, highly concentrated group of suppliers at the California-Oregon Border, or "COB," particularly as the time for dispatch approached in any given supply hour. Ex. CAL-717 at 88:3-5 (Taylor Rebuttal).

FF 312. Shell was particularly active at COB, and because of its large credit line was able to command high prices from CDWR in Real Time sales by reselling power that other suppliers were unwilling to sell directly to CDWR because of its credit problems.

As a result, Shell's prices to CDWR were consistently higher at COB than the prices of other sellers to CDWR at COB. Ex. CAL-717 at 91:2-6, 101:1-102:20 (Taylor Rebuttal); Ex. CAL-717 at 91:6-94:16 (Taylor Rebuttal).

FF 313. Shell's opportunity for high margins with its strong credit position came when other parties, who had exhausted their credit lines, were willing to "sleeve" their sales of power to CDWR through Shell by selling to Shell for resale to CDWR. Ex. CAL-717 at 102:18-20 (Taylor Rebuttal).

FF 314. By its own terms, the Shell-CDWR contract is "governed by and construed and enforced and performed in accordance with the laws of the State of California." Ex. CAL-31 (amended section 10.6).

FF 315. CDWR received many bids that it did not choose to pursue because it deemed them unfavorable, mostly for economic reasons. CDWR turned down offers from large energy suppliers in the region, including Dynegy, PG&E, Williams Power, and LADWP. Tr. 227:18–231:3 (Nichols); 459:1–12 (Hart); Ex. COR-24; Ex. COR-42; Tr. 228:8–231:3, 232:13–20 (Nichols); 459:1–15 (Hart).

FF 316. CDWR was able to assemble a portfolio of contracts at prices that met its $70/MWh target average price and reduced the Net Short that it inherited from the IOUs from about 40 percent during the Crisis to about 33 percent by July 2001. Tr. 235:26-236:9 (Nichols); Tr. 393:18-22, 489:16-20 (Hart); Ex. CAL-210 at 8:8-12 (Hart Direct); Tr. 500:16-501:7 (Hart); Ex. IB-266.

FF 317. As a result of CDWR's demand for Shell to purchase power for CDWR beginning in April 2001 and throughout the summer, Shell demanded a price increase for 2001 through 2003 deliveries from $93.95/MWh to $169/MWh. Shell demanded in the April 6, 2001 LOI a fallback power price, in case the long term deal was not signed by April 30, in the amount of $260/MWh. This fallback price was increased to $315/MWh when the LOI was extended to May 31, 2001. Ex. CAL-200 at 17:5-9 (Nichols Direct); Ex. COR-14; Ex. CAL-200 at 19:1-9 (Nichols Direct); Ex. COR-16; Ex. CAL-200 at 20:3-9 (Nichols Direct); Ex. SNA-219 at 20:17-20 (Brown Answering).

FF 318. Shell's demand for these prices, made at a time when the spot price for April and May 2001 deliveries hovered near $300/MWh, was based on an untrue assertion of fact that Shell made to CDWR – that Shell was being "forced" to purchase power for CDWR in these months "at a loss." Ex. CAL-604 at 25, fig.5 (Goldberg

Direct); Ex. SNA-219 at 18:5-21, 21:3-17 (Brown Answering); Tr. 2734:25-2739:3 (Watkiss Closing Arg.).

FF 319. CDWR was unaware of the extent to which Shell, Enron, and other traders were using the manipulative strategies already described here in their dealings in the California spot markets while CDWR's negotiations with Shell were being conducted. Ex. CAL-200 at 29:7-12 (Nichols Direct); Ex. CAL-680 at 14:5-14 (McIntosh Rebuttal) ("I strongly suspected that sellers, particularly Enron, were playing unlawful games in the Spot Market in 2000 and 2001. However, it was not until after the Crisis, including through recent revelations, that I learned how widespread the wrongful practices were or the specific nature of such practices.").

FF 320. The Enron memos that detailed the strategies did not come to light until May 2002, after Enron went bankrupt and well after the Shell-CDWR contract was signed. Ex. CAL-291 at 209 (FERC Staff, Final Report on Price Manipulation in Western Markets, Docket No. PA02-2-000 (March 2003)); *See Public Utilities Comm'n of State of Cal. v. FERC*, 462 F.3d 1027, 1044 (9th Cir. 2006) (Enron filed for bankruptcy on December 2, 2001).

FF 321. Shell's Margin Reports to the WSPP show that Shell profited from its combined spot and LOI sales by nearly $1 million in April and May 2001. Ex. CAL-717 at 132:13-133:2 (Taylor Rebuttal); Ex. CAL-313 at 71-74, 95-99.

FF 322. When Shell reported the financial results of its California energy trading office to its corporate parent, it stated that "US power margins generated US$20 million in January [2001], compared to a plan of US$2.2 million, reflecting the positive margins generated from West Coast real-time power trading (positive US$19.0 million)." In the month of January 2001 alone, Shell's spot market traders made over nine times the amount of profit that Shell expected to make in that month and double the purported $10 million "loss" it told CDWR that it would take. Ex. CAL-461 at 4; Tr. 1679:11-1680:16 (Brown Cross); Tr. 1680:9-13 (Brown Cross).

FF 323. The prices that Shell and CDWR settled upon in May 2001 were far above the "benchmark" price of $74/MWh that the Commission ruled in December 2000 was a just and reasonable target price for long-term contracts to have in order to solve the Crisis. It was well over CDWR's own target average price of $70/MWh that it had set for all of its long term contracts. *SDG&E v. Sellers*, 93 FERC ¶ 61,294, at 61,994-95 (2000) ("[I]t is our view that five-year contracts for supply around-the-clock executed at

or below $74/MWh can be deemed prudent."); Ex. CAL-200 at 6:17-7:2 (Nichols Direct).

2. Iberdrola Contract

a. Unlawful Spot Market Activities

FF 324. PacifiCorp's unlawful activities in the Spot Market during the Western Energy Crisis are attributable to Iberdrola. *CPUC v Sellers of Long-Term Contracts*, Order Memorializing November 10, 2015 Bench Ruling on Motion to Compel Production of Audio Recordings and Request for Sanctions, November 13, 2015, at P 11.

FF 325. One working group within PacifiCorp worked on power purchasing and selling on behalf of the PacifiCorp public utility on the one hand, while another working group within PacifiCorp worked on power marketing with third parties. Both groups shared many organizational activities. Ex. IB-200 at 14:3-7, 11-22 (Harlan Answering); Ex. IB-211 at 3:4-10:2 (Hudgens Answering); *See, e.g.*, Ex. CAL-319 at 160:12-163:13 (Taylor Direct).

FF 326. Iberdrola and PacifiCorp operated as one entity during the Crisis Period. Iberdrola's president and chief executive officer from May 2001 through November 2008, Terry Hudgens, served previously for PacifiCorp as Senior Vice President for Power Supply. Hudgens testifies that "certain corporate functions were shared" between PacifiCorp and PacifiCorp Power Marketing. Although PacifiCorp Power Marketing's offices were located several blocks away from the PacifiCorp offices and its employees' badges were locked out from accessing the latter's power trading floor, both entities shared a single U.S. chief risk officer and shared mid-office personnel. The chief financial officers of PacifiCorp and Scottish Power had access to the accounting personnel of both entities. Among the corporate functions that PacifiCorp and PacifiCorp Power Marketing shared were legal, credit, human resources, public relations, risk management, and information technology. John Fryer of PacifiCorp's credit department participated in analyzing the credit issues that arose between CDWR and PacifiCorp Power Marketing during the contract negotiations. Even PacifiCorp Power Marketing's now-missing tapes of conversations between its traders and counterparties in the California spot market during the Crisis period were routed through PacifiCorp's legal department when a legal hold was placed on them pursuant to the advent of litigation in this case. Ex. IB-211 at 1:20-21 (Hudgens Answering); Ex. IB-211 at 3:6-7 (Hudgens Answering); Ex. IB-211 at 3:17-20 (Hudgens Answering); Ex. IB-211 at 5:1 and 6

(Hudgens Answering); Ex. IB-211 at 5:19-6:2 (Hudgens Answering); Ex. IB-211 at 6:8-10 (Hudgens Answering); Ex. IB-211 at 6:11-14 (Hudgens Answering).

FF 327. PacifiCorp was one of many market participants that engaged in or facilitated manipulation of the California markets during the Crisis and such manipulation elevated prices in those markets and throughout the West. Ex. CAL-717 at 158:6-9; Ex. CAL-364 at 38-47; Ex. CAL-365 at 19, 79; Ex. CAL-736 (Enron MBR Revocation Order).

FF 328. PacifiCorp manipulation in the Summer and Interim Periods contributed to the demise of the California markets. Ex. CAL-717 at 158:9-10 & n.288; Ex. CAL-746.

FF 329. PacifiCorp manipulation and its facilitation of manipulation in the Negotiation Period undercut reliability in the ISO and caused CDWR to pay excessive prices in order to meet California's electricity needs. Ex. CAL-717 at 158:9-13.

FF 330. Prior to the Summer Period, PacifiCorp engaged in False Export transactions. Ex. CAL-319 at 153:8-154:15; Ex. CAL-408 at 191.

FF 331. PacifiCorp knew as of August 2000 that it was facilitating False Exports. PacifiCorp purchased energy from Sempra for resale back to Sempra, knowing that Sempra purchased the energy from within the ISO and was reselling that energy back to the ISO. Ex. CAL-411Ai-iv, B.

FF 332. During the Summer Period, PacifiCorp engaged in False Export transactions. Ex. CAL-319 at 153:8-154:15; Ex. CAL-408 at 191.

FF 333. During the Summer Period, PacifiCorp purchased energy from Enron for resale back to Enron, knowing that Enron purchased the energy from the PX and planned to resell that energy to the ISO. PacifiCorp engaged in similar transactions with Sempra and Dynegy during the Summer Period. Ex. CAL-408 at 125-26.

FF 334. During the Summer Period the Replacement Reserves acquisition policy of the ISO made use of this strategy to collect high prices for both capacity and energy very attractive. During the early part of the Crisis PacifiCorp was among the most frequent users of the False Export scheme. Ex. CAL-319 at 153:17-154:2; Ex. CAL-408 at 191.

FF 335. During the Interim Period, PacifiCorp engaged in False Export Transactions. Ex. CAL-319 at 153:12-154:9; Ex. CAL-408 at 191.

FF 336. PacifiCorp not only engaged in False Export transactions, but also facilitated False Exports prior to and during the Negotiation Period. Ex. CAL-319 at 151:15-152:3,153:8-158:7, n.231; Ex. CAL-406; Ex. CAL-408 at 191; Ex. CAL-409; Ex. CAL-411 Ai-Av, B; Ex. CAL-489_PAC_Multiparty False Exp_Public.xls.

FF 337. PacifiCorp provided Parking and laundering services all through the Crisis to Enron and Powerex and in the Negotiation Period with Shell and Sempra. Transcripts of recorded conversations between PacifiCorp's traders and their counterparts at Enron, Sempra and Powerex, and in recordings of trader conversations obtained from Shell, show PacifiCorp knowingly and willingly engaged in these transactions. Ex. CAL-319 at 155:1-158:7; Ex. CAL-406; Ex. CAL-409; Ex. CAL-411Ai-Av, B.

FF 338. During the Negotiation Period, PacifiCorp facilitated two different types of False Exports, multi-party and two-party. In both transactions, PacifiCorp served as the entity through which California sourced energy was laundered through the PNW in order for the energy to be sold to CDWR as OOM. In the first type of transaction, Sempra purchased power in NP-15 and sold it to Dynegy, Dynegy exported the power to COB where it sold it back to Sempra for a $20/MWH fee, and then Sempra resold is to CDWR as power generated in the PNW. Ex. CAL-319 at 155:1-158:7; Tr. 1481:13-1483:7; Ex. CAL-406; Ex. CAL-411Ai-Av, B; Ex. CAL-409; Tr. 1488:6-19, 1480:18-22; Ex. CAL-816 at Cell D 13.

FF 339. Iberdrola was active throughout the Negotiation Period in Spot Markets in the Pacific Northwest and made numerous sales to entities, such as Enron, known to have manipulated markets during this period. Ex. CAL-319 at 151:14-152:3.

FF 340. The only Spot Market sales by Iberdrola to CDWR during the Negotiation Period occurred on July 4 through 6, immediately before and during execution of the Iberdrola Contract. On these days, Iberdrola made the following spot sales:

7/4-5/2001 6,950 MWh at $67.01 per MWh at COB
7/4/2001 690 MWh at $75.51 at CKF
7/5-6/2001 1,530 MWh at $86.50 at COB
7/6-7/2001 225 MWh at $62.57 at COB

The total cost of these sales to CDWR was $664,244.65. Ex. CAL-319 at 168:5-13; Ex. CAL-506.

FF 341. During the Negotiation Period Iberdrola and PacifiCorp both used an e-mail address with the suffix "pacificorp.com." PacifiCorp and Iberdrola were on a common e-mail platform that made no distinction between the PacifiCorp and Iberdrola entities. Ex. CAL-319 at 161:14-19; Ex. CAL-499.

FF 342. Both Iberdrola and PacifiCorp employees were included on e-mails relating to the negotiation of the Iberdrola Contract. For example, e-mails dated February 28, April 2, April 11, and May 9, 2001, included both the Iberdrola and CDWR negotiation teams and related directly to the ongoing negotiations and potential resolution of various outstanding issues, including issues relating to credit. Ex. CAL-319 at 162:1-9; Ex. CAL-499.

FF 343. Emails regarding the Iberdrola contract included Nathalie Wessling who was a PacifiCorp employee. Ex. CAL-319 at 162:3-18; Ex. CAL-498; Ex. CAL-499.

FF 344. Andrew Haller was General Counsel and Secretary of PacifiCorp and Secretary of Iberdrola, and Bruce Williams served as Treasurer of both companies. Ex. CAL-319 at 163:6-9; Ex. CAL-300 at 32-33.

FF 345. PacifiCorp and Iberdrola coordinated efforts to manage the audio trader recordings and shared counsel. Ex. CAL-319 at 166:1-28; Ex. CAL-505 at Response CA-IB-56.

FF 346. In 2007, both PacifiCorp and Iberdrola reached settlements of all claims relating to market manipulation in the California and Pacific Northwest electricity markets during the Crisis with the California Parties. However, both settlements explicitly excluded the EL02-60 and EL02-62 proceedings from the releases contained in those otherwise global settlements. Ex. CAL-319 at 152:12-153:1; Order Approving Settlement, *San Diego Gas & Elec. Co. v. Sellers*, 119 FERC 61,296 (2007) (approving and modifying settlement with PacifiCorp as filed on April 11, 2007); Order Approving and Modifying Settlement, *San Diego Gas & Elec. Co. v. Sellers*, 121 FERC 61,014 (2007) (approving and modifying settlement with Iberdrola as filed on June 22, 2007).

FF 347. Iberdrola's predecessor, PacifiCorp Power Marketing, was incorporated as a subsidiary of PacifiCorp in 1995. In 1996, Iberdrola's predecessor applied to the Commission for market-based rate authority. As a condition for granting market-based rate authority, the Commission required the adoption of the "Statement of Policy and

Code of Conduct with Respect to the Relationship Between PacifiCorp Power Marketing, Inc. and PacifiCorp," (hereafter, "Code of Conduct"). The Code of Conduct required that, "[t]o the maximum extent practicable, the operating employees of [Iberdrola] and the operating employees of PacifiCorp shall operate independently of each other." It also prohibited the sharing of non-public market information between the two companies "including, but not limited to, transaction specific data or information concerning any opportunity to purchase or sell electricity at wholesale." "The purpose of the code of conduct was to prevent PacifiCorp Power Marketing from gaining any advantage due to its affiliation with PacifiCorp, either in power transactions or in obtaining access to transmission services." Ex. CAL-285 at 4 n.3; Ex. IB-212; Ex. IB-211 at 8:3-10; Ex. CAL-285 at 4 n.3.

FF 348. In 1999 PacifiCorp was acquired by Scottish Power. On April 27, 2001, PacifiCorp filed a request for authorization from the Commission to engage in a corporate reorganization, including a plan that would place Iberdrola's predecessor under the direct ownership of Scottish Power. The authorization was approved by the Commission on June 19, 2001. Ex. CAL-285 at 4 n.3.

b. Causal Connection of Unlawful Activities to Contract

FF 349. Iberdrola witness Mr. Jim Harlan was the lead negotiator for PPM (Iberdrola's predecessor) in the long-term contract negotiations with CDWR. Ex. IB-200 at 3:1-4.

FF 350. Iberdrola responded to the January 23, 2001 RFB on January 24, 2001. Ex. IB-202.

FF 351. Iberdrola responded to CDWR's RFB with a proposal to provide a 7x24 fixed priced power supply for 10 years from a cogeneration plant in Klamath Falls, Oregon which was expected to come on line on October 1, 2001. Ex. CAL-210 at 16:14-17, 17:9-11.

FF 352. On February 8, 2001, John Fryer of PacifiCorp, sent an email to PacifiCorp and Iberdrola employees identified in the email regarding potential credit issues relating to the CDWR deal. Ex. IB-205.

FF 353. On March 1, 2001, CDWR and Iberdrola executed a First MOU, with a termination date of March 31, 2001 for reaching an agreement. Ex. IB-204; Ex. CAL-245.

FF 354. On March 1, 2001, Iberdrola and CDWR entered into a Memorandum of Understanding (the "First MOU") for the purchase and sale of firm energy on a 7x24 basis for 10 years. Energy deliveries were to ramp up from 100 MW during the first contract year (July 1, 2001 to June 30, 2002) to 400 MW in the final years of the 10-year term. Prices declined over the 10-year term beginning at $95/MWh for the first contract year, with interim reductions and a final price of $60/MWh for the period from July 1, 2005 through the end of the contract term. Ex. CAL-212 at 1-3.

FF 355. The First MOU was to expire by its own terms in the event that a Power Purchase Agreement was not executed by the parties by close of business on March 31, 2001. No agreement was reached, and the First MOU expired. Ex. IB-200 at 8; Ex. CAL-201 at 20, 64.

FF 356. Forward price curves began to decline in late March 2001. By late June 2001, the 18-month forward prices had returned to pre-crisis levels, as had forward price curves for all deliveries beyond 2002. Tr. 1162:3-13; Tr. 1226:14-1227:22; Tr. 1219:16-1220:3; Ex. CAL-76; Tr. 304:7-22; Ex. CAL-606; Tr. 1389:20-1390:4; Tr. 1162:3-13; Tr. 1226:14-1227:22; Tr. 1219:16-1220:3; Ex. CAL-76; Tr. 304:7-22; Ex. CAL-606; Tr. 1389:20-1390:4.

FF 357. March 31, 2001 passed without an executed contract and the March 1, 2001 MOU between CDWR and Iberdrola terminated. Tr. 2205:25-2206:3 (Harlan).

FF 358. On April 2, 2001, Jim Harlan sent an email to Dan Herdocia and others representing CDWR that, inter alia, revised proposed contract prices to reflect corrected forward price curves. Ex. IB-207.

FF 359. Mr. Harlan testifies that by June 21, 2001, it was anticipated that CDWR would issue bonds to finance repayment of its spot market purchases and a portion of its long-term contracts.

FF 360. CDWR and Iberdrola did not reach an agreement on the basis of the changes proposed by Iberdrola in Mr. Harlan's June 21 letter to Mr. Ferreira. Ex. IB-200 at 12. Ex. IB-200 at 12.

FF 361. On June 22, 2001, CDWR and Iberdrola agreed to a second extension of the execution date to July 1, 2001. Ex. CAL-936.

FF 362. On July 3, 2001, the PacifiCorp Power Marketing, Inc. board approved proceeding with the contract between CDWR and Iberdrola. Ex. CAL-213; Tr. 2369:3-2373:4 (Hudgens).

FF 363. The July 3, 2001 presentation to the PacifiCorp Power Marketing, Inc. board explained in a section titled "Pricing Structure and Gas Hedging Strategy" that: The last 8.5 years pricing is tied to a fixed capacity price, an escalating operating and maintenance charge, and a floating energy price based on a heat rate and gas index. CDWR is responsible for the gas cost during this period. This passes the largest risk element and operating cost to CDWR. Ex. CAL-213 at 3.

FF 364. The contract between Iberdrola and CDWR was negotiated between the parties from January 24, 2001 through the day of its signing. It was signed on July 6, 2001. Ex. CAL-604 at 5:3-6 (Goldberg Direct); Ex. CAL-200 at 23:1-2 (Nichols Direct); CAL-041 (CDWR-Iberdrola Contract).

FF 365. Copies of the Iberdrola Contract, as executed on July 6, 2001, are contained in the record of this proceeding at Exs. CAL-41 and IB-208.

FF 366. The contract term ran from July 29, 2001 through June 30, 2011. Iberdrola was to deliver 7x24 energy in the following amounts: from July 29, 2001 through June 30, 2002, 150 MW; from July 1, 2002 through June 30, 2004, 200 MW; from July 1, 2004 through June 30, 2011, up to 300 MW. For deliveries from July 2001 through December 2002, the contract price was fixed at $70/MWh. For deliveries from January 1, 2003 through June 30, 2011, the price was calculated according to fixed and variable charges and a natural gas cost index, and included a tolling arrangement by which CDWR controlled the dispatch of energy from the Klamath generating plant. Ex. CAL-637; Ex. CAL-604 at 4:14-15 (Goldberg Direct); Ex. CAL-637; Ex. CAL-210 at 18:10-15 (Hart Direct); Ex. CAL-604 at 4:14-5:2 (Goldberg Direct); Ex. CAL-637; Ex. IB-200 at 12:1-17 (Harlan Answering).

FF 367. The price set for the initial year and a half of the Iberdrola-CDWR contract met the target average price of $70/MWh that CDWR had set as the goal for its portfolio of long-term contracts. Tr. 197:4-12, 199:18-201:6 (Nichols); 489:16-20 (Hart).

FF 368. At the time the Iberdrola Contract was signed, California had just experienced staged alerts. Tr. 498:15-22, 518:14-21 (Hart); Ex. CAL-41.

FF 369. The Iberdrola Contract was executed on July 6, 2001. The delivery term ran from July 29, 2001 through June 30, 2011. Ex. CAL-634R at 11:3-4; Ex. CAL-41.

FF 370. The Iberdrola Contract rates were fixed at $70/MWh through December 2002. Ex. CAL-634R at 12:2; Ex. CAL-637; Ex. CAL-41.

FF 371. Starting January 2003, the Iberdrola Contract converted to a dispatchable arrangement with various fixed charges, as well as fuel and other variable costs dependent on the energy volumes CDWR scheduled for delivery. As part of this arrangement, CDWR paid a fixed "capacity charge" of $15/kW-month (or $180/kW-yr) at the "Contract Delivery Rate," as defined in the contract, regardless of the quantity of power actually delivered. Ex. CAL-634R at 12:2-8; Ex. CAL-637; Ex. CAL-41.

FF 372. CDWR's ability to dispatch the Iberdrola Contract was subject to various restrictions, as well as additional cycling, start-up and fuel costs. Ex. CAL-634R at 43:13-15; Ex. CAL-789 at 58:8-15; Ex. CAL-637; Ex. CAL-41.

FF 373. The Iberdrola Contract specified COB as the primary delivery point; however, Iberdrola had discretion to deliver up to 50 MW of energy to NP-15 on a monthly scheduled basis, and another 50MW on a daily pre-scheduled basis. Ex. CAL-634R at 13:9-13; Ex. CAL-789 at 58:16-18; Ex. CAL-637; Ex. CAL-41.

FF 374. Iberdrola could curtail up to 12% of delivery volumes annually due to outages or scheduled maintenance without a reduction in CDWR's capacity payments. Ex. CAL-634R at 43:16-44:2; Ex. CAL-789 at 59:1-4 & n.122; Ex. CAL-637; Ex. CAL-41.

FF 375. Iberdrola could curtail an additional 3% of annual delivery volumes for any reason except during the period June 15 through October 15. Ex. CAL-634R at 43:16-44:2; Ex. CAL-789 at 59:1-60:13; Ex. CAL-637; Ex. CAL-41.

FF 376. Capacity charges are costs paid by a buyer to have a specific unit owned by the seller available to meet the buyer's energy requirements, and are associated with contracts tied to a specific generation unit which allow the buyer control over the unit providing the generation. Ex. 634R at 12:8-17; Ex. CAL-789 at 57:12-59:12.

FF 377. Iberdrola used NPV to evaluate the Iberdrola Contract during the Negotiation Period. Ex. CAL-319 at 189: 15-190:17; Ex. CAL-405.

FF 378. Iberdrola calculated NPVs both on a market basis, using forward contract prices, and a cost basis, relying upon the projected generation costs of the Klamath units. Ex. CAL-319 at 190:1-3.

FF 379. Development of the Klamath generating units was already under way prior to the contract negotiations and the Iberdrola's financing of the units took advantage of tax exempt municipal bonds. Iberdrola sought to hedge the long position created by the generating units against declines in market prices. Ex. CAL-717 at 148:10-15; Ex. IB-211 at 10-11.

FF 380. Iberdrola's pricing strategy was to get CDWR to accept a higher price up front by offering a lower price in the out years of the contract. In the stage of price negotiations for the Iberdrola Contract, when the price for energy during the first year and one/half was reduced, the price for capacity during the final seven years of the contract was increased. Ex. CAL-319 at 175:1-9; Ex. CAL-415; Ex. CAL-717 at 149:6-8.

FF 381. The lower front end prices in the Iberdrola Contract meant greater up-front losses that required out year prices well above market levels to recover shortfalls in the earlier years. Ex. CAL-319 at 176:8-11; Ex. CAL-717 at 149:3-8.

FF 382. Iberdrola was successful in achieving its pricing strategy in negotiations. Ex. CAL-319 at 176:8-11; Ex. CAL-717 at 149:6-8.

FF 383. PacifiCorp was one of many market participants that engaged in or facilitated manipulation of the California markets during the Crisis. Such manipulation elevated prices in those markets and throughout the West. Ex. CAL-717 at 158:6-913; Ex. CAL-736 (Enron MBR Revocation Order).

FF 384. PacifiCorp activity in the Summer and Interim Periods contributed to the demise of the California markets and its facilitation of manipulation in the Negotiation Period undercut reliability in the ISO and caused CDWR to pay excessive prices in order to meet California's electricity needs. Ex. CAL-717 at 158:9-13.

FF 385. PacifiCorp continued its facilitation of market manipulation throughout the Negotiation Period by providing Parking and buy/resell laundering services to Shell and

other market manipulators, knowing the illicit purpose of the transactions and their effect on the price paid by CDWR. Ex. CAL-319 at 158:1-7, 159:6–160:16; Ex. CAL-411Ai, B at 1; Ex. CAL-411Av, B at 5; Ex. CAL-411Ai, B at 1; Ex. CAL-411Aiii, B at 3.

FF 386. During the Negotiation Period when its Spot Market traders were engaged in Spot Market manipulation and the facilitation of manipulation, PacifiCorp was aware that its subsidiary Iberdrola was in the process of negotiating a long term contract with CDWR. Ex. CAL-319 at 163:15-164:13; Ex. CAL-500.

FF 387. CDWR had "specific reasons" for entering into the Klamath Contract that "had little bearing on pricing." In spring 2001, CDWR experienced significant transmission constraints on Path 15 between Southern and Northern California and was seeking deliveries north of Path 15. CDWR considered Northern California to be "particularly vulnerable to spot market price volatility due to its typical reliance upon short-term and seasonal imports from the Pacific Northwest and due to the well-known 'Path 15' constraints in transmission between northern and southern California." With deliveries in Northern California, the Klamath Contract was considered to be a "valuable" asset for CDWR, a fact that "would go into the terms of the price that the department was willing to enter into for the transaction." Ex. CAL-156 at 23; Tr. 367:13-23; Tr. 368:2-3; Ex. CAL-156 at 24-25; Ex. CAL-156 at 23; Tr. 281:20-23; Tr. 364:22-23.

FF 388. There are no records of CDWR modeling Klamath Contract pricing against forward price curves and no testimony from any witness for the Complainants that the evaluation was done. During the period it was negotiating long-term contracts, CDWR believed that forward price curves were an unreliable basis for setting prices for its long-term contract portfolio. Mr. Harlan testified that the forward price curves were "not relevant to that discussion. I don't know where [CDWR] got their price from." Tr. 2249:16-18; Tr. 744:22-24; *see also* Tr. 2595:11-24; Ex. MSC-17 at 3; Tr. 2249:16-18.

FF 389. Generally, CDWR's evaluation of contract pricing was based on a target set in January 2001 of an average weighted cost of $70/MWh for its entire long-term contract portfolio. The $70/MWh target was based on the "all-in power generation average cost embedded in the average retail rates of the three investor-owned utilities in California." Tr. 195:23-196:1; Tr. 235:16-21; Tr. 391:14-17; Tr. 196:13-20; Ex. CAL-201 at 18; Tr. 196:13-20; Ex. CAL-201 at 18, 55; Ex. CAL-201 at 17-18.

B. Whether the Contracts at Issue Imposed an Excessive Burden on Consumers Relative to the Rates They Could Have Obtained After Elimination of the Dysfunctional Spot Market, or Otherwise Seriously Harmed the Public Interest, Such That the *Mobile-Sierra Morgan Stanley* Rule is Overcome?

1. Shell Contract

FF 390. The Shell contract imposed an excessive burden on consumers "down the line" in the nominal-dollar amount of $384.8 million ($779 million when FERC interest to May 2015 is included, plus additional FERC interest from May 2015 to date). Ex. CAL-634R at 76:1-6 and tbl.8 (Celebi Direct).

FF 391. The rates charged by Shell between 2001 and 2003 for generation alone exceeded the average all-in retail rate charged to California customers at the time, and still exceed rates charged throughout the United States today. In 2001, California customers paid average retail rates of $118/MWh and average retail rates for all customers nationwide was only $104.50/MWh in 2014. Ex. CAL-665 at 12:11-13:5.

FF 392. Average retail rates include a component for generation, transmission and distribution services; the generation component generally comprises between 50 and 65% of the total retail rate. Shell's rates of $169/MWh and $249/MWh therefore were multiples higher than the average generation component. Ex. CAL-665 at 12:14-13:3; *see also* Tr. 932:17-24 (Kito).

FF 393. At the time of the Crisis, energy prices were at an all-time high. After the market recovered and returned to normal in the late summer of 2001, California energy prices moderated considerably, declining to below $50/MWh on average beginning in October 2001. Ex. CAL-665 at 8:3-6.

FF 394. In the second quarter of 2001, CDWR paid for its power purchasing costs by means of ratepayer remittances, loans/advances from the State general fund, and interim loan funding. Tr. 623:3-624:9 (Pacheco).

FF 395. In order to pay the debt service and interest on the long-term bonds, California retail ratepayers pay a surcharge on their monthly bills known as the "Bond Charge." Ex. SNA-256 at 6:12-13.

FF 396. Reserves required for the bond issuance referenced by Mr. Pacheco have been kept in an interest-bearing account. Tr. at 649:16-19 (Pacheco).

FF 397. Reserves required for the bond issuance referenced by Mr. Pacheco have been and will continue to be returned to ratepayers with interest as the bonds have matured. Tr. 626:12-14, 649:20-650:1 (Pacheco).

FF 398. The State decided to spread out its excess costs from 2001 in order to protect consumers from "rate shock." Tr. 642:20-644:8 (Pacheco); Tr. at 963:2-964:3 (Berck).

FF 399. After 2002, the costs of CDWR's long-term contracts were collected from ratepayers by means of a surcharge on their monthly bills known as the "Power Charge." Ex. SNA-256 at 6:13-15.

FF 400. Complainants' witness Ms. Kito confirmed that "the period of the energy crisis was unique and that the post-crisis period was different." Tr. 905:1-5 (Kito).

FF 401. Long-run marginal cost (LRMC) is equal to CONE plus variable operating expenses. Ex. SNA-244 at 8:9-11.

FF 402. LRMC is a measure of long-term, competitive pricing independent of any short-term market dysfunction. Ex. SNA-244 at 11:9-12.

FF 403. The Commission has recognized LRMC is a reasonable benchmark for long-run competitive pricing and has in multiple contexts found that just and reasonable market designs should produce prices that allow recovery of LRMC over time. Ex. SNA-244 at 16:3-17:15.

FF 404. Long-run marginal cost, or "LRMC," is independent of the vagaries of the marketplace and represents a constant cost of power to society over the long haul. It is typically represented in economic thought (with the agreement of economics experts on both sides of this case) by the total yearly levelized fixed and variable cost of installing, running, and maintaining a new combined-cycle gas-fired generating plant, expressed as a constant rate in dollars per kilowatt-year. Ex. SNA-244 at 13:11-12, 33:3-6 (Niemann Answering); *see also* Paul A. Samuelson and William D. Nordhaus, Economics 464 n.1 (12th ed. 1985); Ex. CAL-634R at 48:17-49:2 (Celebi Direct); Ex. SNA-244 at 19:14-15 (Niemann Answering).

FF 405. Complainants' witness Dr. Celebi uses September 2001 forward market prices as a benchmark to evaluate the pricing in the Coral Contract. Ex. CAL-634 at 25:10-26:2.

FF 406. Dr. Celebi's calculation of down-the-line burden is based on the cost of substitute power as calculated from forward prices reported by two brokers—TFS Energy and Natsource—during trading days in September 2001. Ex. CAL-634R at 25:10-26:2.

FF 407. As of September 2001, TFS and Natsource reported forward power prices only through the year 2005. Ex. CAL-634R at 34:3-4.

FF 408. To demonstrate that market fundamentals cannot explain the prices in the Shell and Iberdrola Contacts, Dr. Celebi derived expected prices for the products delivered under the contracts based on the underlying cost elements of producing electric power as of the contract execution dates (May 25, 2001 for Shell and July 6, 2001 for Iberdrola). Dr. Celebi referred to these prices as "Fundamentals-Based Prices." Ex. CAL-634R at 46:9-77; Ex. CAL-789 at 10:13-11:15.

FF 409. Dr. Celebi employed a two-step process to determine Fundamentals-Based Prices for the Shell and Iberdrola Contracts' terms. For near-term deliveries (2001-2004), he utilized market simulation software (DAYZER) to estimate locational marginal prices for the products delivered under the contracts. For later-year deliveries (2005-2012), Dr. Celebi developed prices consistent with the costs to build and operate a new gas-fired combined-cycle plant (also known as long-run marginal cost or LRMC) as of the contracts' execution dates. Ex. CAL-634R at 47:6-49:2.

FF 410. In a functioning competitive market, expected energy prices in the near-term should reflect the short-run marginal cost of generation, i.e., the marginal production cost of available, existing units on the margin. Short-run marginal costs are routinely estimated by market simulation software such as DAYZER. Ex. CAL-634R at 47:18-48:4, 60:3-7.

FF 411. In the long-run, and under equilibrium conditions, competitive energy prices should be consistent with LRMC. The expected time to reach long-run equilibrium conditions depends on how quickly new units can be built to meet the increased need for generation. Ex. CAL-634R at 48:4-14.

FF 412. Dr. Celebi assumed the transition to prices based on LRMC in 2005 because in the early 2000s, it took approximately four years to develop a new gas-fired combined-cycle power plant in California. Therefore, near-term contract deliveries (2001-2004) would have had to have been sourced from units actually available during those years and not from the hypothetical new plant. Ex. CAL-634R at 48:14-17; Ex. CAL-789 at 12:7-13; Tr.810:17-19 (Celebi).

FF 413. Shell witness Dr. Niemann agreed that as of early 2001, the process to develop a new gas-fired combined-cycle power plant in California would take three to five years. Tr. 2142:17-20; 2144:2-3 (Niemann).

FF 414. The DAYZER software utilized by Dr. Celebi simulates the operation of the WECC system, and calculates the hourly marginal cost of energy at each pricing location within the system. Dr. Celebi used the DAYZER software to replicate WECC system conditions and expectations as of the contract execution dates (May 25, 2001 for Shell and July 6, 2001 for Iberdrola). Ex. CAL-634R at 49:3-51:2; Ex. CAL-643.

FF 415. Market simulations are routinely used to forecast future power prices as a function of expected market fundamentals. Ex. CAL-634R at 60:3-7.

FF 416. For years 2005-2012, Dr. Celebi derived Fundamentals-Based Prices consistent with long-run equilibrium conditions. Specifically, he estimated prices based on the expected costs to build and operate a new gas-fired combined-cycle power plant (LRMC) as of the contract execution dates, and translated those costs to a $/MWh figure for each product delivered under the contracts. Ex. CAL-634R at 63:10-72.

FF 417. The Shell Contract rates were substantially higher than Fundamentals-Based Prices during the initial years of the contract, but close to Fundamentals-Based Prices in the later years. Ex. CAL-634R at 73:5-74:3, fig.22.

FF 418. The Iberdrola Contract rates exceeded Fundamentals-Based Prices in all years except 2011. Ex. CAL-634R at 74:4-11, 75, fig.23.

FF 419. In addition to the Shell and Iberdrola Contracts, CDWR executed approximately 50 additional long-term contracts in 2001. Ex. CAL-634R at 78:3-6.

FF 420. CDWR paid $36.41 billion, at an average “all-in” price of $75.79/MWh, for approximately 480 million MWh of energy delivered under the CDWR Long-Term

Contracts, from October 2001 through December 2014. Ex. CAL-634R at 78:7-15; Ex. CAL-218.

FF 421. Trial Staff's witness Mr. Poffenberger admitted that charging every electric ratepayer in California a few pennies a month on their electric bill is a very powerful way to raise a lot of revenue because there are many customers. Tr. 2601:3-7 (Poffenberger).

FF 422. Trial Staff's witness Mr. Poffenberger admitted that rates collected from retail customers to pay for the Shell Contract could have been used for alternatives uses; these alternatives are an opportunity cost of the contract. Tr. 2599:18-2560:7 (Poffenberger); *see also* Ex. CAL-699 at 15:19-16:1.

FF 423. Trial Staff's witness Mr. Poffenberger admitted that opportunity costs can be viewed in the aggregate for all ratepayers as for society as a whole, or on an individual basis for each ratepayer. Tr. 2560:11-15 (Poffenberger).

FF 424. The Excess Charges California consumers paid to Shell and Iberdrola could have been used to fund California's public purpose programs for low income ratepayer assistance and energy efficiency for two years based on the nominal amount of overcharges, or up to three years factoring in interest. Ex. CAL-699 at 16:2-12.

FF 425. The Excess Charges California consumers paid to Shell and Iberdrola could have been used to fund significant additions of new generating capacity within California such as four to five new 550-MW Combined Cycle Gas Turbine plants or between fifteen and twenty-three 100-MW Combustion Turbine peaking power plants, as shown in Table 2 from CAL-699. Ex. CAL-699 at 16:13-17:5, tbl.2.

FF 426. The Excess Charges California consumers paid to Shell and Iberdrola could have been used to fund the construction of fifty new schools within the State. Ex. CAL-319 at 193:8-10.

FF 427. California's IOUs are authorized to collect through retail rates many large and legitimate cost components necessary to provide safe and reliable electric service that meets California's policy mandates in addition to power generation costs. Ex. CAL-699 at 12:4-9, 3:1-6; Tr. 2041:3-11 (Fulmer)

FF 428. The CPUC had to impose significant rate increases in 2001 and 2002 as a result of the Crisis and the significant economic hardship to California consumers from

those rate increases are evidenced by the complaints of residential customers made to the CPUC included in the record as Exs. CAL-262 and CAL-263. Ex. CAL-241 at 47:13-53:24; Ex. CAL-262; Ex. CAL-263.

FF 429. The significant rate increases in 2001 and 2002 imposed as a result of the Crisis impacted industrial and commercial consumers including, for example, causing businesses to close facilities, lay off workers, or consider scaling back operations in California. Ex. CAL-241 at 54:8-55:17; Ex. CAL-264 at 4, 13-30; Ex. CAL-242B at 2.

FF 430. The significant rate increases in 2001 and 2002 imposed as a result of the Crisis strained California agricultural businesses and challenged their ability to remain competitive against agricultural businesses located outside the State. Ex. CAL-241 at 55:18-56:13; Ex. CAL-265 at 4-5.

FF 431. The CPUC received complaints from California ratepayers regarding the impact they suffered from CDWR Power Charges and CDWR Bond Charges assessed on their utility bills long after the Crisis ended. Ex. CAL-241 at 59:13-60:9; 60:14-22; Ex. CAL-266 at 1; 267 at 1.

FF 432. Large industrial energy users – including Anheuser-Busch, BOC Gases, and others – complained to the CPUC in September 2001 expressing concern that rising engery costs could force them to leave or reduce their presence in the State. Ex. CAL-241 at 54:8-56:3; Ex. 264.

FF 433. Shell's witness Mr. Fulmer estimated an average retail rate increase to an average industrial or commercial customer due to the Shell Contract, but did not examine impacts to specific industrial or commercial customers. Tr. 2085:18-20 (Fulmer).

FF 434. Iberdrola's witness Mr. Monsen presented no evidence that he examined actual impacts on any specific industrial or commercial customers resulting from the average retail rate increases attributable to the Iberdrola net or gross contract costs. Ex. IB-246.

FF 435. The Environmental-Dynamic Revenue Analysis Model (EDRAM) created by Dr. Berck uses the relationships between 185 distinct sectors of the California economy to estimate the overall financial and economic impact of various events on the State and its citizens. Ex. CAL-666 at 9:19-21, 11:17-20.

FF 436. State Personal Income is the sum of income received by all persons in California, including wages and benefits, property income, proprietors' income and public and private transfer payments less contributions for government and social insurance. Ex. CAL-666 at 2:17-3:2.

FF 437. Real State Personal Income is State Personal Income divided by the consumer price index. Ex. CAL-666 at 3:3-5.

FF 438. The $4.8 billion reduction to Real State Personal Income caused by the Shell and Iberdrola Contracts is on the same order of magnitude as some of California's largest ever infrastructure projects, including building the new span of the Bay Bridge ($6.4 billion) and the bond to fix California's water system ($7.5 billion). Ex. CAL-666 at 7:14-18.

FF 439. EDRAM is used regularly by the State of California to determine the impacts on the economy from new regulations or taxes. Ex. CAL-666 at 9:19-10:2 (Berck Direct Testimony); Ex. CAL-805 at 2:9-13.

FF 440. EDRAM has been peer reviewed. Tr. 954:15-17 (Berck); Ex. CAL-805 at 5:3-8.

FF 441. Consumers paid for the costs of the Shell and Iberdrola Contracts through retail rates increases in 2001-2002, the CDWR Power Charge from January 2003 through contract termination, and the Bond Charges. Ex. CAL-241 at 31:8-32:2; Ex. SNA-26 at 18:20-19:2; Ex. IB-246 at 13:3-12.

FF 442. Every penny of excess contract rates that Shell and Iberdrola charged CDWR has been or will be paid for by California ratepayers. Ex. CAL-241 at 32:3-5, 65:8-17.

FF 443. The public, consisting of all of California's retail ratepayers within the service territories of the three IOUs, have paid and will continue to pay rates resulting from the contracts at issue until the Bond Charges end in 2022. Ca. Water Code § 80104; Ex. CAL-241 at 30:17-32:10.

FF 444. On February 2, 2001, the legislature enacted permanent emergency purchasing legislation in the form of AB1X (Ex. CAL-15), which transferred an additional $495,755,000 into the Electric Power Fund. AB1X also provided ongoing

authority for further General Fund transfers into the Electric Power Fund, with the proviso that the total amount transferred would be paid back at the earliest possible time. Tr. 622:7-14 (Pacheco); Ex. CAL-214 at 4:2-7.

FF 445. From January through June 2001, $6.1 billion was transferred from the General Fund to the Electric Power Fund. CDWR paid for both Spot Market purchases and payments under the CDWR Long-Term Contracts from the funds transferred into the Electric Power Fund. Ex. CAL-214 at 4:11-14; Ex. CAL-684 at 11:3-17; Ex. CAL-687A, B.

FF 446. In 2001, the CPUC authorized rate increases for the IOUs, which helped the IOUs pay for about half of the energy CDWR purchased. Tr. 622:18-623:2 (Pacheco); Ex. CAL-214 at 5:1-4; Ex. CAL-241 at 14:26-27; CPUC Decision 01-01-018, at 1-2.

FF 447. The CPUC raised PG&E and SCE's retail electric rates by a total of four-cents per kWh in 2001 in response to the increase in the wholesale electricity prices during the Crisis, through a one-cent increase approved on January 4, 2001 and three-cent increase approved on March 27, 2001. Ex. CAL-241 at 32:13-34:9; Tr. 2096:4-9 (Fulmer).

FF 448. The CPUC increased system-average retail rates for SDG&E customers in September, 2001, of 1.46 cents/kWh or 12.1 percent to implement a CDWR charge for SDG&E's customers. Ex. CAL-241 at 36:11-14.

FF 449. CDWR received an interim or bridge loan of $4.3 billion on June 26, 2001. Tr. 623:7-18 (Pacheco).

FF 450. From January 2001 through December 2002, CDWR paid for Spot Market and Long-Term Contract purchases with funds from the State's General Fund, third party loans, and IOU remittances. Ex. CAL-214 at 4:17-5:4.

FF 451. The State of California issued bonds to pay for CDWR's power procurement expenses incurred in 2001-2002 that could not be repaid in full with revenues collected from the IOU's customers and remitted to CDWR. Ex. CAL-241 at 57:6-10.

FF 452. At the end of 2002, CDWR received $11.3 billion from Power Supply Revenue Bonds. Tr. 624:16-17 (Pacheco); Ex. CAL-689.

FF 453. The bond funds were needed to avoid rate shock to consumers, disruption to people's lives, avoid blackouts, and avoid disruption to California businesses from blackouts and high prices. Tr. 643:4-7 (Pacheco).

FF 454. CDWR carried an $8.152 billion debt as result of its energy procurement responsibilities until it received bond funds at the end of 2002. Tr. 667:7-15 (Pacheco).

FF 455. CDWR's receipt of IOU remittances was insufficient to pay down its $8.152 debt. Tr. 667:16-18 (Pacheco).

FF 456. CDWR paid almost $16 billion in energy costs from the beginning of 2001 through the end of 2002. Tr. 667:23-25 (Pacheco).

FF 457. Of the $16 billion in energy costs that CDWR incurred from January 2001 through December 2002, the IOU remittances only covered about half, or $8.2 billion. Tr. 668:14-17 (Pacheco).

FF 458. Since January, 2003 California ratepayers have paid for electricity supplied by CDWR under the Long Term Contracts through the Power Charge assessed on their utility bills. Ex. CAL-241 at 39:11-14; 40:7-10; 42:17-43:5; Ex. SNA-256 at 8:15-16; 19:1-2; Ex. IB-246 at 22:15-23:2.

FF 459. The Power Charge is a fixed per-kWh rate assigned to each IOU that the IOUs then charge their customers for all CDWR power they consume; it is passed-through directly to CDWR. Ex. CAL-241 at 40:7-10; 41:12-42:13; Ex. 214 at 11:18-12:3; Tr. 2062:3-14 (Fulmer); Ex. IB-246 at 24:16-25:3.

FF 460. The Power Charge is established without regard to the rates or charges for electric power sold by the IOUs. Ex. CAL-241 at 41:12-42:13 (explaining CPUC Decision 02-02-052 at 90).

FF 461. The Power Charges and Bond Charges appear as a separate rate on electric utility bills of customers of the California IOUs. Ex. CAL-241 at 45:2-46:19; Ex. CAL-260 at 2; Ex. CAL-261 at 2, Ex. CAL-266 at 7.

FF 462. California ratepayers will be paying for the Bond Charge until 2022 and for the Power Charge until all costs CDWR incurred related to the Long-Term Contracts are recovered. Tr. 669:23-670:1 (Pacheco); Ex. CAL-214 at 12:1-3.

FF 463. CDWR paid $2.8 billion for energy under the Shell Contract. Ex. CAL-214 at 16:15-17.

FF 464. The state of California experienced socio-economic trade-offs due to the excessive burden of the Shell Contract. Ex. CAL-699 at 16:2-12 (Florio Rebuttal).

FF 465. During the Crisis there were many instances of hardship that citizens endured and wrote to the CPUC about because of high electric bills and rolling blackouts—the inability of people on fixed incomes to buy necessities because they must pay electric bills that increased by $100 a month, the disruption of normal routines in order to conserve electricity, the need to reduce home heating to minimal levels during cold winters in order to reduce the bill, the fear of losing one's home, the increased cost of operating medical equipment. Businesses suffered as well, threatening to abort an economic revival in California that had just gotten started. Ex. CAL-241 at 47:13-48:18 (Florio Direct); Ex. CAL-241 at 50:20-36 (Florio Direct); Ex. CAL-241 at 51:18-23 (Florio Direct); Ex. CAL-241 at 51:24-52:4 (Florio Direct); Ex. CAL-241 at 52:24-53:2 (Florio Direct); Ex. CAL-241 at 54:8-56:13 (Florio Direct).

2. Iberdrola Contract

FF 466. Iberdrola contract imposed an excessive burden on consumers "down the line" in the nominal-dollar amount of $258.7 million ($371 million when FERC interest to May 2015 is included, plus additional FERC interest from May 2015 to date). Ex. CAL-634R at 77:1-5 & tbl.9 (Celebi Direct).

FF 467. CDWR paid $1.1 billion for the energy under the Iberdrola Contract. Ex. CAL-214 at 16:18-20.

FF 468. Because a portion of the payments under the Shell and Iberdrola Contracts were paid from bond funds, in addition to the $2.8 billion and $1.1 billion paid for energy, CDWR also incurred interest charges. Ex. CAL-214 at 17:15-18.

3. Other Serious Harms to the Public Interest

FF 469. Spot prices in California exceeded $100/MWh only once prior to May 2000, in August of 1997. Ex. CAL-604 at 17:4-5 (Goldberg Direct).

FF 470. The public was clearly, palpably, seriously harmed by the energy crisis. Ex. CAL-241 at 65:1-7 (Florio Direct) ("Table 5 shows that the rates consume[r]s paid for power delivered under the Shell Contract in 2001-2003 were four to six times higher than what competitive rates would have been once the market dysfunction ended. The rates consumers paid for power delivered under the Iberdrola Contract were two to three times higher in almost every year compared to what the competitive rate would have been once the market dysfunction ended (the multiple is 1.9 for 2009)." (emphasis in original)).

CONCLUSIONS OF LAW

CL 1. Iberdrola Renewables, LLC is a proper party in this proceeding.

CL 2. The *Mobile-Sierra-Morgan Stanley* presumption of the justness and reasonableness of a bilateral contract is avoided in connection with the long term contract dated May 24, 2001 between Shell Energy North America (US), L.P. and the California Department of Water Resources, by reason of Shell's unlawful activity comprising fraud in the formation of the contract.

CL 3. The *Mobile-Sierra-Morgan Stanley* presumption of the justness and reasonableness of a bilateral contract is not avoided in connection with the long term contract dated July 6, 2001 between Iberdrola Renewables, LLC and the California Department of Water Resources, by reason of any unlawful activity on Iberdrola's part.

CL 4. The *Mobile-Sierra-Morgan Stanley* presumption of the justness and reasonableness of a bilateral contract is overcome in connection with the long term contract dated May 24, 2001 between Shell Energy North America (US), L.P. and the California Department of Water Resources, by reason of its excessive burden on consumers and because it is contrary to the public interest.

CL 5. The *Mobile-Sierra-Morgan Stanley* presumption of the justness and reasonableness of a bilateral contract is overcome in connection with the long term contract dated July 6, 2001 between Iberdrola Renewables, LLC and the California Department of Water Resources, by reason of its excessive burden on consumers and because it is contrary to the public interest.

CL 6. Accordingly, the *Mobile-Sierra-Morgan Stanley* presumption of the justness and reasonableness of a bilateral contract does not apply to the long term contract dated May 24, 2001 between Shell Energy North America (US), L.P. and the California Department of Water Resources.

CL 7. Accordingly, the *Mobile-Sierra-Morgan Stanley* presumption of the justness and reasonableness of a bilateral contract does not apply to the long term contract dated July 6, 2001 between Iberdrola Renewables, LLC and the California Department of Water Resources.

ORDER

391. IT IS ORDERED, that this case is returned to the Commission for further action, with the record supplemented and findings made as set forth herein. This Initial Decision is subject to review by the Commission on exceptions or on its own motion, as provided by the Commission Rules of Practice and Procedure.[763] Within thirty (30) days of the issuance of the final Commission order in this proceeding, the participants shall comply with the findings and conclusions reflected in this Initial Decision, as adopted or modified by the Commission.

Steven A. Glazer
Presiding Administrative Law Judge

[763] *See generally* 18 C.F.R. §§ 385.708(d), 711(a).